July-August 1975

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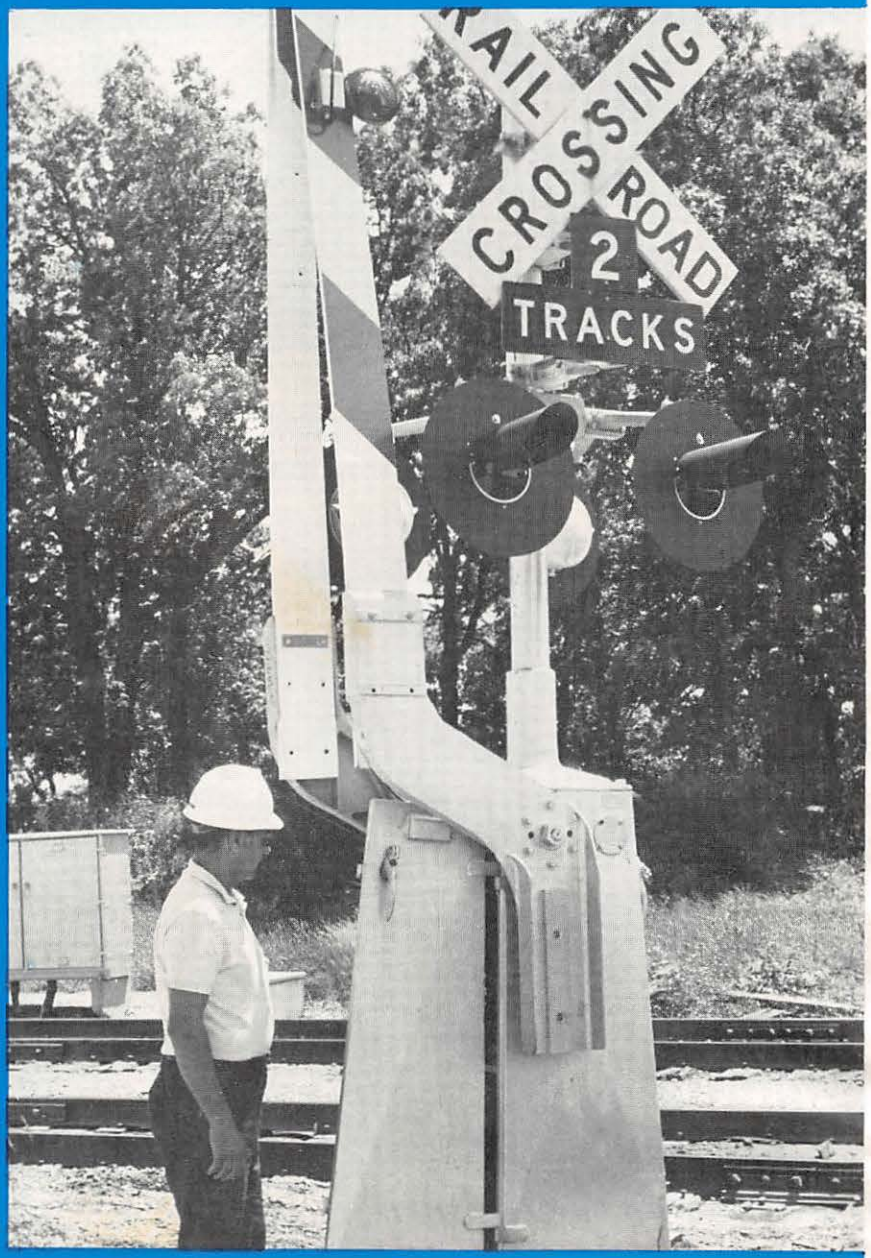
THE SIGNALMANS JOURNAL



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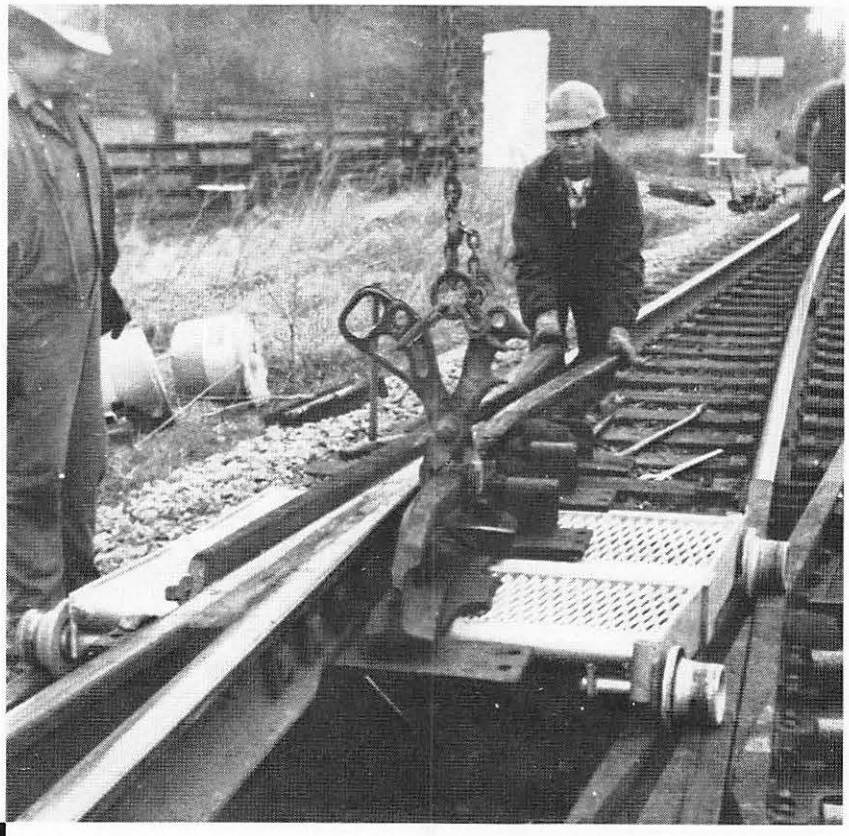

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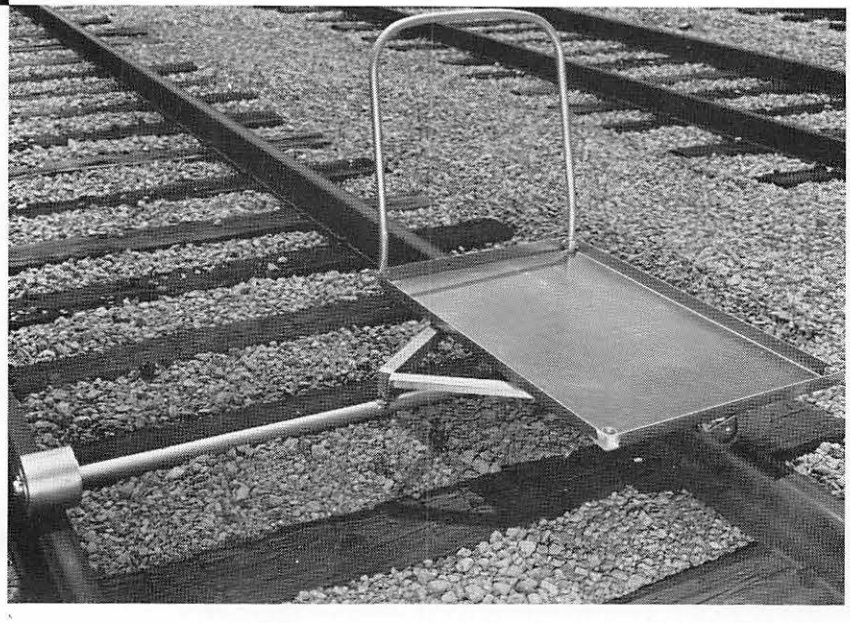

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The Signalman's JOURNAL

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Robert W. McKnight, Editor and Manager

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July/August 1975

Vol. 56 No. 6

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Cover: L. T. Davies, MILW general chairman inspects crossing warning system.

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GRAND LODGE DIRECTORY

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Chamberlain's Message

Proposed rules for crossing warning systems are joint effort of BofRS-AAR

Undoubtedly, there are some who are of the opinion that our organization should confine itself solely to the task and responsibility of negotiating and policing contract agreements. Admittedly, there is valid argument that it would be more economical just to promote wages and equitable working conditions and let the railroad industry take care of its own problems But, in the long run, would it be more beneficial to our members? We think not.

If we have learned nothing else from the decline and decay of the railroad industry in the recent past, we should have come to realize that the welfare of the industry has much to do with the welfare of the employes. Therefore, in our own best interest, we should encourage and actively support joint undertakings with the carriers, whenever possible, that hopefuliy will aid the industry as a whole.

One such recent endeavor was the establishment of a joint committee, composed of BofRS and AAR members, working together for the purpose of proposing rules and standards which would govern the maintenance and installation of grade crossing warning devices. For some period of time we considered authoring a petition on our own to the Federal Railroad Administration, proposing that regulations be adopted and enforced similar to those in the Signal Inspection Act, which govern signal systems. We were concerned that grade crossing warning devices, as a result of no regulatory standards and controls, were neither being properly installed nor adequately maintained. Such conditions and practice reduce the overall effectiveness of the warning systems.

We contend that the FRA is empowered with the authority and outright responsibility under provisions of the Railroad Safety Act of 1970, to promulgate rules and regulations for highway grade crossing warning devices. Surely the catastrophic consequences resulting from a train collision with a fully loaded gasoline transport truck falls within the realm of "railroad safety." Such an accident is a matter of record, as are other similarly catastrophic incidents wherein a school bus, crowded with children, was totally wiped from the worldly scene forever.

As for equipment maintenance, some investigations have revealed that improper operation of the devices, either through equipment breakdown, inadequate maintenance or both, were the principal cause of the accident. One tragic accident, which we vividly recall, resulted in the death of two women, a mother and a grandmother. That particular incident was far worse than one at an unequipped crossing and was more in the form of a "booby trap" because the devices did not warn of the approaching train. They were inoperative due to a 15¢ blown fuse in the power supply at the crossing. Because the fuse was not replaced the standby battery supply became exhausted.

In late 1973, we appointed a BofRS committee to study the problem and draft rules and regulations, appropriate and applicable for the installation and maintenance of grade crossing warning devices.

In addition, at grade crossing seminars, conferences, etc., and whenever the opportunity presented itself, we advertised the fact of our intent and designs relative to this subject. This led to informal discussions with several members of the AAR who indicated an interest in these endeavors. It was suggested that a joint committee composed of BofRS and AAR Communication and Signal Section members, should study the problem, agree to the drafting of proposed regulations, and then submit them to the FRA to be considered for adoption.

The matter was further pursued by the interested parties. J. R. DePriest, superintendent communications and signals, Seaboard Coast Line, and Chairman of the Signal Liaison Committee of the AAR, invited our committee to meet with them and explore a program that would hopefully serve to achieve some mutually favorable results down the road. This first meeting was held at the AAR office building in Washington, D.C.

Pertinent data and material that had already been developed relative to this subject by both groups was distributed. Owing to the size of the full committee, it was decided that a reduced committee composed of both groups should be

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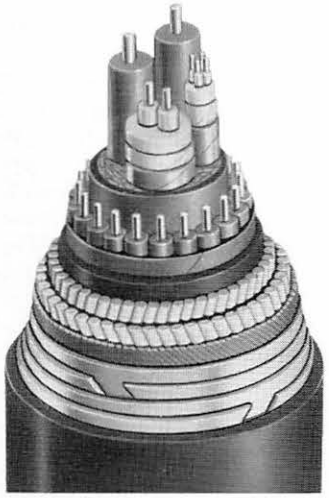

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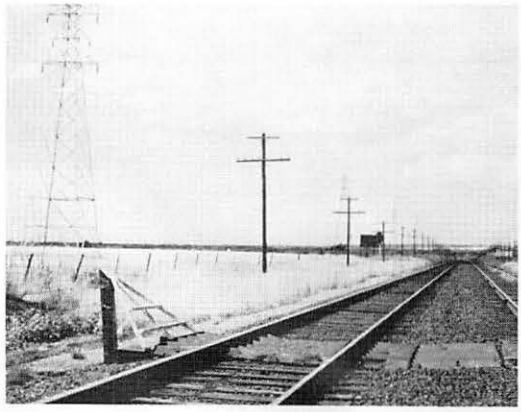

You end right.

OKONITE

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Signal chiefs present proposed crossing warning rules to FRA Administrator **Asaph Hall** (right). Others are (left to right): **J. R. DePriest,** chairman AAR signal liaison committee; **J. P. Powell,** chairman Communication & Signal Section, AAR; and **C. J. Chamberlain,** president, BofRS.

appointed to draft a proposal of regulations, which upon completion would be presented to the full committee for final consideration before adoption.

The reduced, or BofRS-AAR working committee, was comprised of P. H. Foley, engineer, communications & signals, AAR; C. H. Dunn, director of signal engineering, Burlington Northern; J. L. Weatherby, engineer, communications & signals, Missouri Pacific; L. V. Anderson, assistant vice-president, operations and general manager, Milwaukee Road; and from the Brotherhood of Railroad Signalmen, W. D. Best, vice-president; J. E. Hansen, director of research; R. W. Maddux, signal inspector, Texas & Pacific; and R. W. McKnight, editor, The Signalman's Journal. H. H. Parker, general chairman, Chesapeake & Ohio, and J. Sottile, general chairman, Long Island, are on the full BofRS crossing warning system committee.

After several meetings, proposed regulations were tentatively adopted by the joint committee.

On June 23, 1975, the jointly proposed standards were presented to Asaph Hall, acting Federal Railroad Administrator, by J. R. DePriest; J. P. Powell, superintendent signals, Louisville & Nashville; and myself. We are confident that the jointly sponsored regulations will be adopted and also highly pleased that such a joint accomplishment is near realization. The time is long past due to make an effort to establish regulatory standards for these devices and we sincerely appreciate the mutual understanding and cooperation of all the participants in this undertaking. We trust that we will be able to join in other efforts for the good of the industry in the future.

While the light at the end of the tunnel is coming into view on this problem, still of great concern is the fact that thousands of grade crossings remain without any warning devices whatsoever. It is most difficult to comprehend why this is so—particularly when the funds have been made available. State and local governments, as well as some railroads, have not aggressively sought to obtain these available funds. Millions of dollars in Federal funds are allocated each year under provisions of the Federal Highway Act of 1973 to equip unprotected crossings or improve those that exist. We are fearful that millions of dollars will remain in the fund when the appropriations expire on June 30, 1978. Unfortunately, it will serve to indicate to Congress that there is no need for such funds, and our future requests on this behalf will go unheeded.

Yearly, more than twelve hundred people are killed and many times that number seriously injured in grade crossing accidents, most of which occur on unprotected crossings. I am sure that most of us have been touched in one manner or another, by a tragic accident at a grade crossing. Warning devices can no longer be considered as a luxury and only used at a few priority crossings. They have now become an item of everyday necessity, expected to be failsafe, and rightfully so. People, particularly motorists, have become so dependent upon receiving some type of warning of an approaching train, that the slogan of bygone years, "STOP, LOOK & LISTEN" is completely foreign in the present hub-hub of the American scene. The money is there—available and waiting—and should be put to use to provide automatic warning systems for grade crossings.

News

BofRS to hold regional meeting on August 16

A regional meeting of the Brotherhood of Railroad Signalmen that should be of interest to members in the states of Illinois, Indiana, Kentucky, Michigan and Ohio, will be held Saturday, August 16, 1975 at Linder's on the Point at Anderson, IN.

C. J. Chamberlain, president; R. T. Bates, secretary-treasurer; and other grand lodge officers and staff; as well as representatives from Travelers, Provident Insurance, Railroad Retirement Board, and the Office of Safety of the Federal Railroad Administration, will be present to make brief presentations and answer questions from members. Attorney Edward J. Erpelding of Indianapolis and Frank Petro of the firm of Henslee, Monek & Henslee will be present to inform members about their rights and benefits under the Federal Employers' Liability Act as well as answer questions.

Following the meeting, the law firms of Henslee, Monek & Henslee and E. J. Erpelding will host a social hour and luncheon.

Training conference to meet in Miami

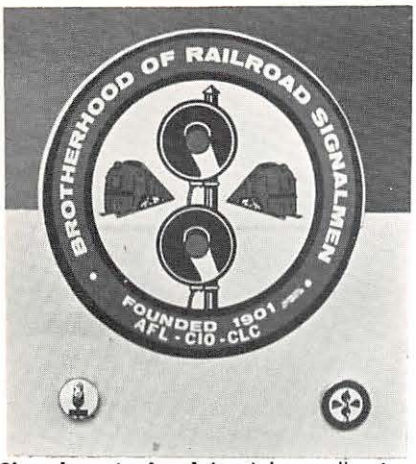
The National Transportation Apprenticeship and Training Conference will hold its annual meeting at Miami Beach, FL on Sept. 22-25, 1975. J. T. Bass, vice-president, represents the Brotherhood of Railroad Signalmen on this organization.

RUIA bill is ready for Ford's signature

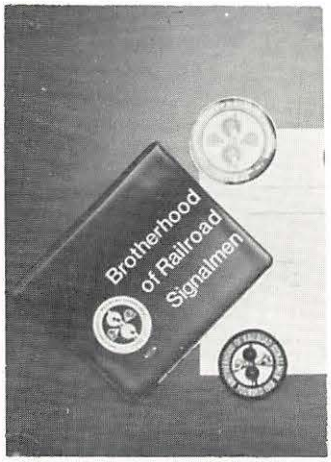
As this issue goes to press, the House and Senate of the U.S. Congress had passed the railroad unemployment compensation bill. It was expected to be signed by President Ford. Agreement was reached on the provisions by the unions and the railroads. The agreement provides for unemployment and sickness benefits in an amount equal

(Please turn to page 8)

Signalman's Store



Signalmen's decal (top) has adhesive backing so it can be applied to glass, leather, metal, etc. for BofRS identification on car windows, bumpers, luggage, hard hats, etc. The emblem is 4" in diameter. It has a red border with white letters. The signal displays green over red. Below left is a metal **colorlight signal lapel pin** ½" in diameter with signal showing green over yellow over red on white enamel background. Signal and pin outlined in gold. Below right is ⅝" **BofRS lapel pin** identical to decal except letters and outline are in gold.



At top is decal with **Master National Agreement Book** below. Green 3-ring binder is 7" by 9" and has 2" diameter rings. Below is **cloth emblem** with BofRS in white letters on red border, two locomotives and green over red searchlight signal.

Coasters (3" dia.) come in black and gold, or in white, red and green with BofRS emblem.

Master National Agreement book has basics

The basic provisions of national agreements negotiated with U.S. railroads and the BofRS are contained in a loose-leaf binder with 2-inch rings so there is room for additional material, such as local agreements. The 21 sections are: A—summary of wage changes; B—summary of other benefits; C—Washington job protection agreement of 1936; D—vacations; E—Union shop agreement; F—Holidays; G—Claim and grievance handling; H—Health and welfare; I—Force reductions; J—Employment security; K—Travel time and away-from-home expenses; L—Off-track vehicle accidents; M—Jury duty; N—Overtime; O—Camp cars; P—Apprentice programs; Q—Change of residence; R—Earnings deduction in discipline cases; S—Supplemental sickness benefits; T—Union dues checkoff; and U—Amtrak C-1, C-2.

Signalman's training books are available

The 8-volume signalman's training course covers the following subjects: 1—electricity, circuit symbols and nomenclature; 2—signal terms, relays, track circuits and meters; 3—automatic block signaling, time code control and electronics; 4—traffic control systems and power switch machines; 5—highway grade crossing warning systems and FRA RS&I tests; 6—remote control and automatic interlockings; 7—ctc machines and their operation; 8—maintenance of signal equipment.

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News Cont'd

to 60% of the employe's last daily rate of compensation for railroad service in qualifying year, with a floor of $12.70 and a ceiling of $24 for the year beginning July 1, 1975 and $25 per day beginning July 1, 1976.

This bill will reduce the initial waiting period for sickness benefits from seven days during the first registration period to four consecutive days for each period of continuing sickness. Thereafter, benefits would be payable for each day of sickness during the same period of continuing sickness, excluding four days in each registration period.

Also, for employes with less than 10 years of service, the bill provides for 13 weeks of extended unemployment benefits in periods of high unemployment.

The service qualification requirement for new entrants in the railroad industry would be reduced from seven months to five months.

Considerable work was put behind labor's efforts to come to agreement with the railroads on the specifics of the bill. Leading the labor team was C. J. Chamberlain, chairman Railway Labor Executives' Association and BofRS president.

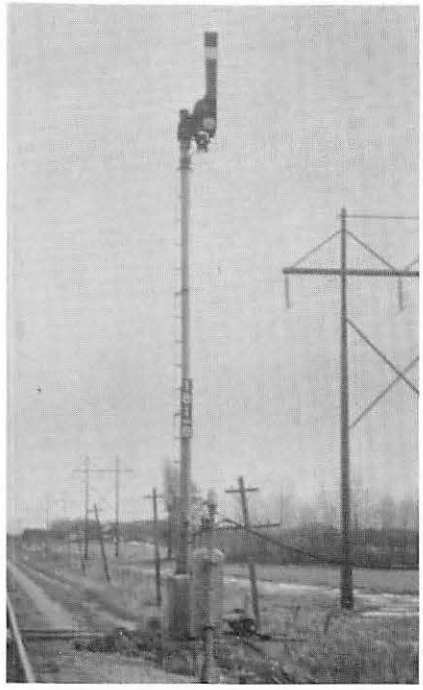
Federal jobs available for signalmen

Now more than ever, there are federal jobs available for signalmen. The recently passed Railroad Safety Act of 1975 provides for more signal and train control inspectors for the Federal Railroad Administration. Also, the National Transportation Safety Board is seeking railroad accident inspectors.

To apply for an FRA or NTSB inspectors job, the U.S. Civil Service personal qualifications statement (Form 171) is used. Forms can be obtained at Federal Job Information Centers located in major cities around the U.S.

For FRA Office of Safety S&TC inspector applications one should obtain the Civil Service Commission Announcement 413, follow the instructions and use Job Code 187. For the FRA jobs, applications should be filed with the Federal Job Information Center in your area.

For accident inspector jobs write to Thomas DeW. Styles, Chief Railroad Safety Div. NTSB 800 Independence Ave., S.W., Washington, DC 20591.



Just before conversion this picture shows Signal No. 181-8 the last style B alternating current semaphore signal on the La Crosse Division of the Milwaukee Road. The signal is located just west of Portage, WI. It was changed to a color-light unit along with about 125 other semaphore signals located between Hastings, MN, and Portage.

Signal crew under the direction of **D. E. Twitchell,** foreman, was involved in converting semaphore signals to color-light units. Standing left to right are: **Robert L. "Scotty" Reister,** leading signalman; **Joseph L. Kreye,** signalman; **B. D. "Bob" Barton,** signal inspector; and **Joseph P. Fahey,** signalman. Kneeling is **David J. Eifealdt,** assistant signalman. Brothers Barton, Fahey and Kreye are members of Milwaukee Local No. 61. Brothers Eifealdt and Reister are members of Minneapolis Local No. 220. Pictures and information supplied by Brother Twitchell, a member of Milwaukee Local No. 61.

Class 5 of Milwaukee Road's basic signal training, was held in Tacoma, WA. Seated (left to right) are: **W. G. Anderson,** signal inspector; Brothers **Daniel L. Pegram, Joel R. Boren, Edward J. Carter, Jerry L. Brown;** and **C. L. Imhauser,** supervisor signals. Standing (left to right) are: Brothers **Waldo E. Kuchling, Mike A. Sealund, Chuck M. DeNune, Chris E. Lange, Larry F. Owings, Elton E. Treible** and **Roger A. Hinther;** and **Loren Sandstrom,** staff engineer signals. The brothers are members of Avery local No. 4.

Signal training class 6 was held at Milwaukee, WI. Kneeling (left to right) are: **Jim B. Hamilton** (local 219); **Steve N. Kuruzovich, Vic R. Weber** and **Todd A. Thiede** of Milwaukee local 61. Standing (left to right) are: **Tom J. Hanlon,** supervisor signals & communications; **Joe C. Budziak** (local 219); **Larry J. Goodman** (local 61); **Chuck R. Jacobson, Joe E. Sobieszcyk** and **Bill A. Springer** (local 219); and **Donald L. Wylie,** assistant chief engineer signals & communications.

MILW signal training is in 5th year

Milwaukee Road is now in its fifth year of training new employees to become skilled signalmen. By the time the ninth class is in session this fall, some 80 students will have attended signal training courses at the road's schools at Milwaukee, WI and Tacoma, WA. Training is conducted by the signal and communications section of the engineering department and resulted from an agreement between the carrier and the Brotherhood of Railroad Signalmen. Successful completion of ten months of training, including six one-week classroom sessions is a requirement for all new employees.

Employees on the western sections of the Milwaukee Road attended classroom sessions at the relay repair shop at the Tide Flats in Tacoma. Instructors included Loren Sandstrom, staff engineer signals, Charles L. Imhauser, supervisor signals & communications, and M. A. Haight, senior signal inspector. Sandstrom and Haight also teach at the Milwaukee, WI school.

Classroom sessions make use of model track layouts to demonstrate track and signal control circuits for automatic block signals, centralized traffic control, rail-highway crossing warning systems and interlockings. Actual blueprints and signal equipment commonly found on the Milwaukee Road are used in the classroom.

During non-classroom weeks, trainees work with signalmen on actual signal installation and maintenance projects. The technical training course is based on Canadian National signal training texts.

"Overall goal of the on-going training program is to provide uni-

BofRS active in folk festival

Four Long Island signalmen recently had the opportunity to describe their work to hundreds of fellow Americans. They were **Tom Devine,** electronic technician; **Anton Dorner,** chief signalman; **Joe Southard,** signal technician; and **Jim Sottile,** general chairman. The event was the Festival of American Folklife held in Washington, DC June 25-29 and July 2-6.

The four brothers, members of Aerial local 56, maintained and demonstrated the operation of a dwarf signal and a flashing-light signal equipped with an automatic gate.

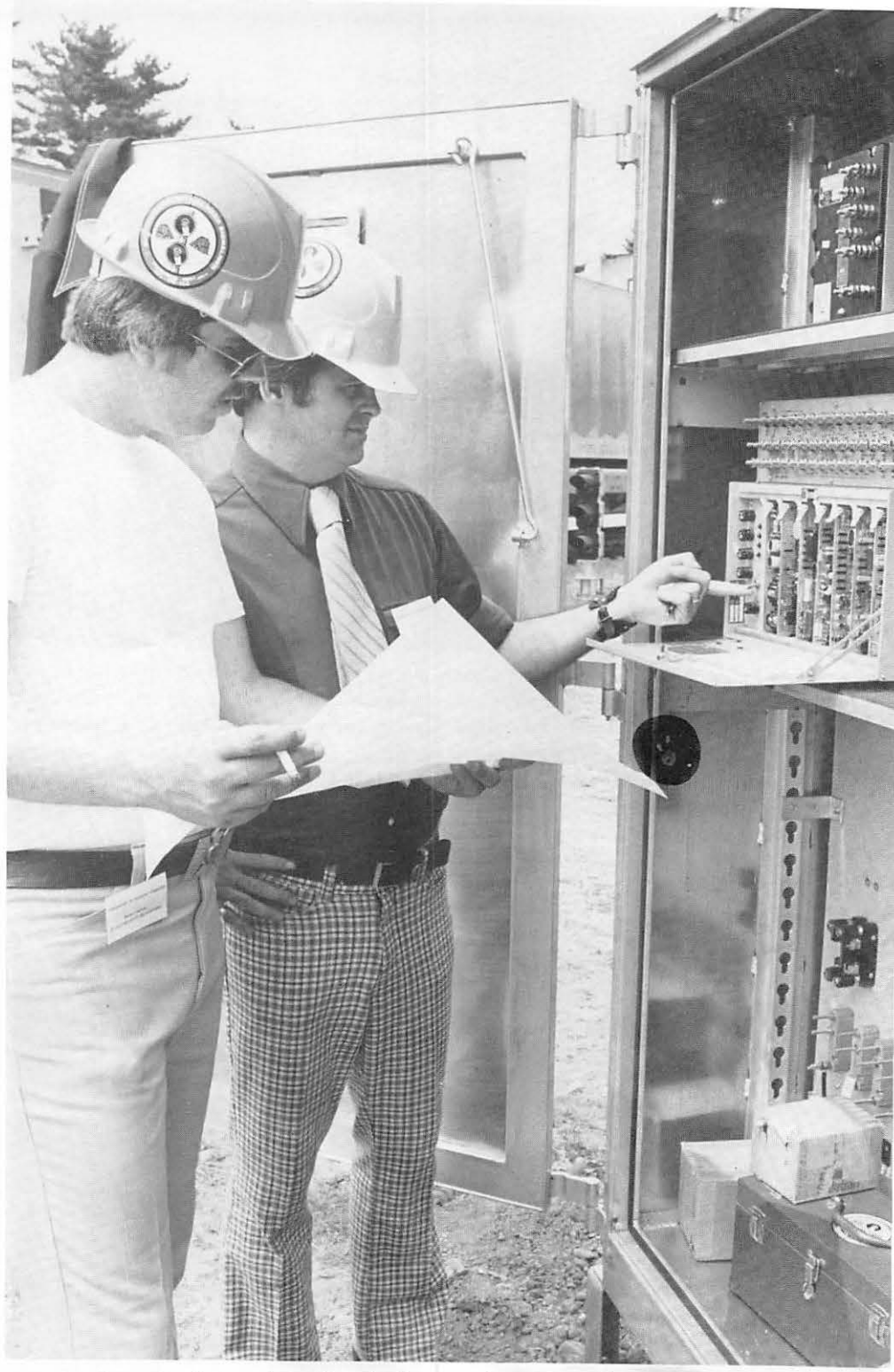
The equipment was furnished by Safetran Systems Corp.'s Transportation Engineering Services Co. of Louisville, KY. BofRS members of local 200 wired the instrument case and assembled the controls for the crossing signal and gate.

Included in the controls is Safetran's modular solid-state control system that provides constant warning time for the rail-highway crossing warning signals. Known, as the Grade Crossing Predictor, the unit features plug-in printed circuit boards for ease of maintenance.

AC power was furnished that fed rectifiers for turning out dc and charged Edison nickel cadmium batteries that fed the dwarf and crossing signals.

Sottile and his fellow Long Island signalmen explained how the equipment operates and answered hundreds of questions from visitors.

This was but another case of the Signalmen becoming involved in promoting safety to the American public. Reports from The Mall indicate our Signalmen were most successful in getting the safety story across, as well as pointing out the key role of the signalman in railway operations.



Brothers **Devine** and **Sottile** check controls against plans at case.

Long Island signalmen who participated in the Folklife Festival included (left to right): **Tom Devine,** electronic technician; **Joe Southard,** signalman technician; **Anton Dorner,** chief signalman; and **Jim Sottile,** general chairman.

Brothers **Dorner** and **Southard** look over circuit plans for crossing signal.

Visitors to BofRS manned signal site included AAR signal officers (right to left): **P. H. Foley,** engineer communications & signals; **J. R. DePriest,** chairman signal liaison committee; and **J. P. Powell,** chairman, Communication & Signal Section.

is gaining attention

that is, the number of crossings that should be equipped with automatic warning devices, is now coming into focus. As a result of the 1973 Highway Act a grade crossing inventory is being taken. A cooperative effort on the part of the Association of American Railroads, the Federal Highway Administration and the Federal Railroad Administration is now about 95 percent complete. Estimates are that over 400,000 public and private crossings are involved with some 230,000 of them in the public domain. The inventory not only identifies each grade crossing with a number but includes such pertinent information as to name of the railroad, type of warning devices, a layout of the crossing, number of tracks, highway lanes, and volume of traffic, both highway and railroad. For the first time a truly accurate picture of the grade crossing safety problem will be available.

As to the warning devices themselves, the motorist actually only sees about 10 percent of the automatic warning system, namely the flashing light signals, the gates and associated signs, masts and possibly the equipment housing. The remaining 90 percent of the installation consists of the controls, wire, cable and track circuit equipment. The high ratio of unseen elements is one reason it is difficult for the general public to understand or appreciate the cost of such warning systems. Costs of these warning systems range from about $20,000 for flashing-lights to about $40,000 for flashing-light signals with automatic gates, complete with sophisticated controls providing the minimum 20 second warning time to motorists regardless of the speed of approaching trains.

There are standards for automatic warning systems covering equipment, installation, maintenance and testing. Most notable are Communication & Signal Section, AAR, Signal Manual of Recommended Practices; Bulletin No. 7 of the AAR titled "Railroad-Highway Grade Crossing Warning Systems—Recommended Practices; and various state standards.

It should be pointed out, however, with all these fine standards, one element is missing. Enforcement! Yes, compliance with these standards, both AAR and Bulletin No. 7 are on a voluntary basis. A few states have standards which are enforced, but most are concerned only with installation, unless the state is paying for the maintenance as well as the installation.

For example, since April 1966, Oklahoma has had rules and regulations for the installation, inspection and testing of flasher and other warning signals at railroad crossings. Incidentally, Oklahoma regulations were actively supported by the Brotherhood of Railroad Signalmen. We provided technical assistance to the state legislative committee that developed the rules as well as the law that placed them on the statute books.

While it is true that most railroads have their own rules and regulations concerning the installation, inspection, testing and maintenance of automatic warning systems, there are no Federal regulations in this area. We contend that the FRA is empowered with the authority and outright responsibility under provisions of the Railroad Safety Act of 1970 to promulgate rules and regulations for highway grade warning devices.

Committee is appointed

To this end, about 18 months ago we appointed a special committee of Brotherhood of Railroad Signalmen officers and members, and charged them with the task of develing standards for the installation, maintenance, inspection, and testing of crossing warning systems. Our committee, working jointly with the Signal Liaison Committee of the Association of American Railroads, developed a set of proposed crossing warning system standards.

On June 23, 1975, these proposed standards were presented to Asaph Hall, Acting Federal Railroad Administrator. The Brotherhood of Railroad Signalmen and the AAR asked Mr. Hall to consider the proposed standards and requested adoption by the FRA in this area of improving rail-highway grade crossing safety. I have every confidence that these proposed standards will be adopted (with only minor changes from the original) as Federal rules, enforceable by the FRA.

With adoption of Federal standards, I feel much will be done to effectively improve safety at rail-highway grade crossings. For example, the proposed standards require inspection of warning device operation monthly. Other specific tests and inspections will be carried out quarterly and annually, and at two and eight year periods as required.

One aspect of highway-grade crossing safety which I realize is a touchy one, involves the lawsuits resulting from grade crossing accidents. Usually when a crossing accident lawsuit goes to trial, the motorist, or the heirs of the driver, collect. For some reason the verdicts tend to be on the side of the motorist even in cases where a driver smashed the gate arm and drove into or in front of an oncoming train. The responsibility and the blame for such accidents must be placed on the proper doorstep, however, the staggering liability is generally borne by the railroads.

Today, with public funding for installation of warning systems, the railroad companies should not always be made to pay when a train-motor vehicle collision occurs.

I can assure you of one thing, and that is with Federal rules and regulations governing the installation, operation, inspection and testing of automatic warning systems, the safety of rail-highway grade crossings will improve even beyond present records.

As for the future, I see nothing but improvement in grade crossing safety because there is; (1) continuing interest and active support from the public and by governmental agencies at Federal, state and local levels; (2) continuing improvements in automatic crossing warning systems and equipment by suppliers and manufacturers; (3) continuing support by the railroads, particularly from their safety and signal departments (those directly responsible in this area); (4) continuing cooperation among all parties concerned—the public, government, railroads, manufacturers and labor; and (5) most important, the involvement of the Brotherhood of Railroad Signalmen.

Rail-highway grade crossing safety

Spreading the word about rail-highway grade crossing safety is C. J. Chamberlain, president, Brotherhood of Railroad Signalmen. Below is an abstract from his talk presented to the Railroad Section, Association of Trial Lawyers of America in Toronto, Ont., on July 28.

Recent figures from the National Transportation Safety Board show that 1,250 persons were killed in rail-highway grade crossing accidents during 1974. This is about a three percent increase over the previous year.

The past three years the number killed has held at the 1200-1260 level, which is down from a high of 1,780 in 1966, the peak during the last 25 years. Interestingly, the number injured in crossing accidents is about equal to the number of accidents, some 3,000 plus. In 1966, the number of accidents peaked at 4,097 and the number of injured was 4,043.

Generally speaking, the figures covering the last 25 years show a decrease in the number of accidents, killed and injured at rail-highway grade crossings. During this time the number of registered motor vehicles in the United States has risen from about 52 million to 115 million. Meanwhile, the number of crossings with automatic warning devices has also increased, even at a greater rate than the increase in motor vehicles. The number of rail-highway grade crossings protected in 1951 was about 19,000 and now numbers over 49,000.

Motor vehcile accident statistics reveal that a collision between a train and a motor vehicle is much more apt to result in a fatality than one in which a train is not involved. The record shows that about one in 275 highway accidents involves a fatality, while the ratio increases to about one in ten for rail-highway grade crossing accidents.

Two factors have played a significant role in reducing the number of accidents at rail-highway grade crossings: (1) equipping crossings with automatic warning devices; and (2) making the public more responsible for safety at rail-highway grade crossings.

As early as 1964, the Interstate Commerce Commission placed the responsibility for rail-highway grade crossing safety squarely on the public. That ICC opinion, Report and Order No. 33440, was sustained by the U.S. Supreme Court in 1966. Key findings in that report included:

"In the past it was the railroad's responsibility for protection of the public at grade crossings. This responsibility has now shifted. Now it is the highway, not the railroad, and the motor vehicle, not the train, which creates the hazard and must be primarily responsible for its removal.

"Highway users are the principal recipients of the benefits flowing from rail-highway grade separations and from special protection at rail-highway grade crossings. For this reason, the cost of installing and maintaining such separations and protective devices is a public responsibility and should be financed with public funds the same as highway traffic devices," the ICC report stated.

Public funding is reaching a peak with new financing by the federal government

Since that statement, various levels of government have followed through, admittedly being urged by the public and specifically by railroad people—among them the rail unions taking an active and leading role in support of public interest in this safety area.

As for financing, there has been public funding for many years, but new interest has been created. Probably the most recent quantum jump in the financing area was the passage of the Federal Highway Act of 1973. Briefly stated, that Act provided $175 million for crossing safety projects on the Federal-Aid Highway System and $250 million for safety projects including crossing improvements on all public roads not part of the Federal system. This authorization was for a 3-year period (Fiscal Years 1974 through 1976). Railroad labor, and specifically the Brotherhood of Railroad Signalmen actively supported the 1973 Highway Act. In fact, without fear of contradiction, I can say that the Act would not have been passed by Congress if railroad labor had not been behind it all the way.

As Signalmen, we are a safety oriented craft—involved in the installation, testing, inspection and maintenance of signal systems—for the safe and efficient movement of rail traffic. So, we recognize how vital it is to have automatic warning devices at rail-highway grade crossings. Ever since our founding in 1901, the Brotherhood of Railroad Signalmen has been involved and actively engaged in the improvement of safety for the traveling public.

How are we progressing? From a safety standpoint, the number of accidents, killed, and injured is coming down, although for the last three years the figures have been more or less stationary. There is increased funding, and the latest figures show that states are spending about $6 million per month ($4 million per month for crossing projects on Federal-Aid highways and $2 million per month for crossing projects on other public streets and roads.)

There is a time limit for the use of Federal funds provided by the 1973 Highway Act, of June 30, 1978. To use up the allocated funds, the present spending level of $6 million per month will have to be maintained until the 1978 deadline.

Indications are that the past rate of automatic warning device installations, of some 1200 crossings equipped annually, will have to be almost doubled. Expectations are that this year might very well see that figure reached. Now is the time to get on with the job, and fortunately many railroads and states are doing just that.

The magnitude of the problem—

One check **Brother Davies** performs at rail-highway crossings is to determine that correct voltages are found at key points in the control system.

In addition to checking on the searchlight signal mechanism, **Brother Davies** makes sure that the mechanism cover is closed and properly fastened and locked.

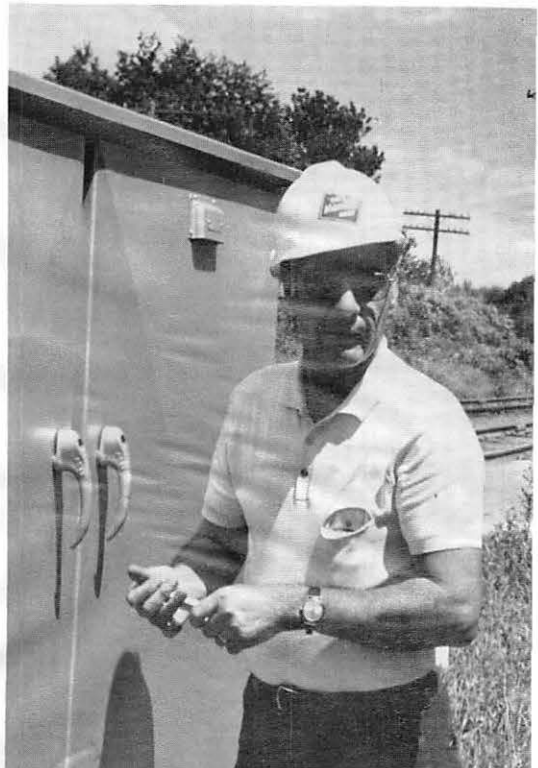
Brother Davies makes frequent inspections of automatic crossing warning systems including the gate operating mechanisms (left).

necessary tests and inspections as required by the Federal Railroad Administration's Rules, Standards and Instructions on signal systems. He covers his 30-mile territory on a track motor car.

In addition to his Brotherhood activities which include handling claims, grievances and having conferences with carrier management, and attending local meetings, Brother Davies finds time for "hobbies" such as wood working in a basement shop. In a spacious yard along side their ranch style home, he and his wife, Doris, put their "green thumbs" to work raising vegetables and fruits.

Interest in the overall affairs of the BofRS was a recent trip to Dubuque, Iowa to attend a joint meeting of Brotherhood members of the Chicago & North Western and the Rock Island. These two railroads crisscross and parallel the Milwaukee Road in many areas.

Also, Brother Davies stopped enroute at Lanark, Illinois to visit with Brother R. D. Peek, Milwaukee Road signal maintainer. Getting around seeing his members and obtaining their views is just one of the many and varied duties so ably handled by Leo T. Davies, Milwaukee Road general chairman.



Camera "caught" **Brother Davies** just after he finished checking voltages in instrument case.

The Signalman's JOURNAL

Safety is key job for Leo Davies

A signal maintainer is a "jack of all trades" in the railroad industry. He may be a family man; could have been an aerial gunner in World War II, and just might very well be general chairman for the Brotherhood of Railroad Signalmen on the Milwaukee Road. That in capsule form is Leo T. Davies of Hampshire, Illinois. Of course, there is more, but the above reveals what is so good about many Brotherhood of Railroad Signalmen "line officers," those men who are daily working out in the field with the members.

General Chairman since 1970, Brother Davies is an active man who maintains 30 miles of double-track automotive block signaling and still has time to be an effective general chairman. He will be the first to admit that he has able help from vice-general chairmen A. R. Bretschneider and R. L. McConahay and general secretary J. C. Fortune.

At present, Davies and McConahay are working on a final draft of a revised agreement between the BofRS employes and the Milwaukee Road. Many long hours and conferences have gone into this work. "It's a job that had to be done, especially updating our old agreement and the many memoranda of agreements that have been worked out over the years," Davies says.

A native of Madison, Wisconsin, Brother Davies graduated from Spring Green High School in 1939. He spent his World War II days in the U.S. Air Force. Overseas, in England and Europe, he was an aerial gunner instructor on B-17 bombers from 1943 to October, 1945.

With a talent for things mechanical and electrical, it is no surprise that he went to work for an electrical contractor upon his discharge from the Air Force. He spent five years in this job which included radio and electronic shop work.

In 1950, Brother Davies began his signal career with the Milwaukee Road. He advanced through various positions, becoming signal testman in 1954. He held this position for eight years. Since 1962, he has been signal maintainer at Hampshire.

This year, Brother Davies will receive his 25-year membership pin in the BofRS. He has always been active in Brotherhood affairs, first joining Local 61. From this lodge were formed Locals 219 and 220. Brother Davies was a charter member of Local 219 and also local chairman. He is now completing his second term of office as general chairman.

In addition to maintaining 22 automatic block signals on the Milwaukee Road's double-track mainline from Chicago to Council Bluffs, Iowa, Brother Davies has 15 rail-highway grade crossings equipped with flashing-light signals and automatic gates. He checks operation of these automatic warning devices weekly. Several of the installations are equipped with audio frequency overlay circuits, and at two crossings motion sensors are in service.

In addition to normal maintenance Brother Davies performs the

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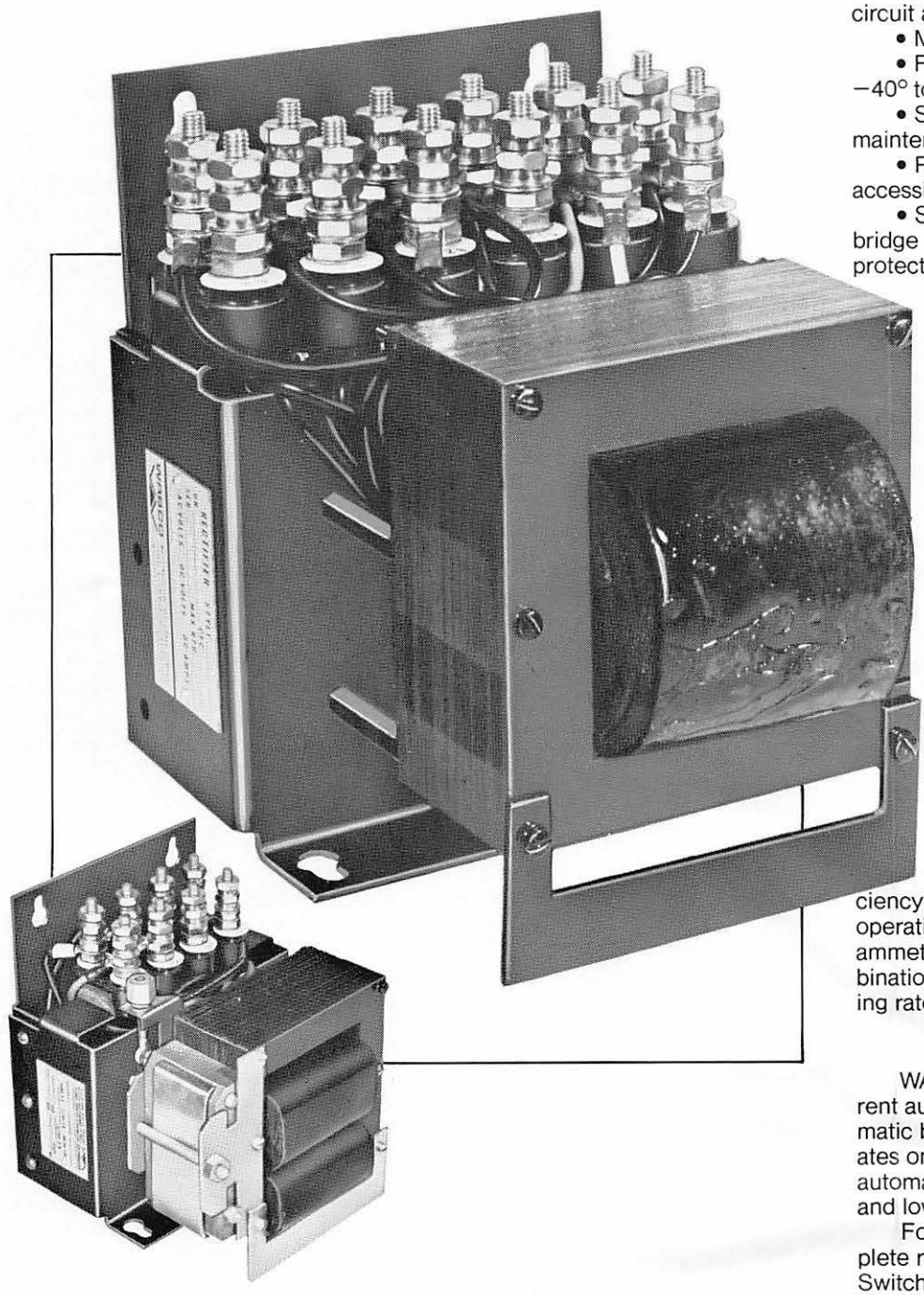

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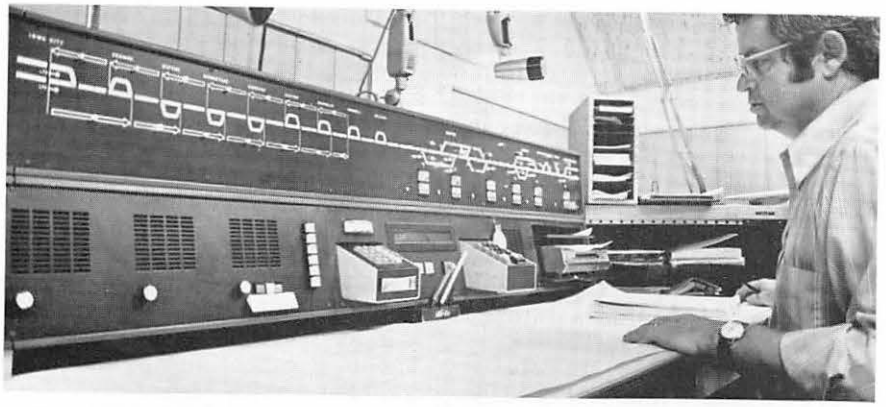
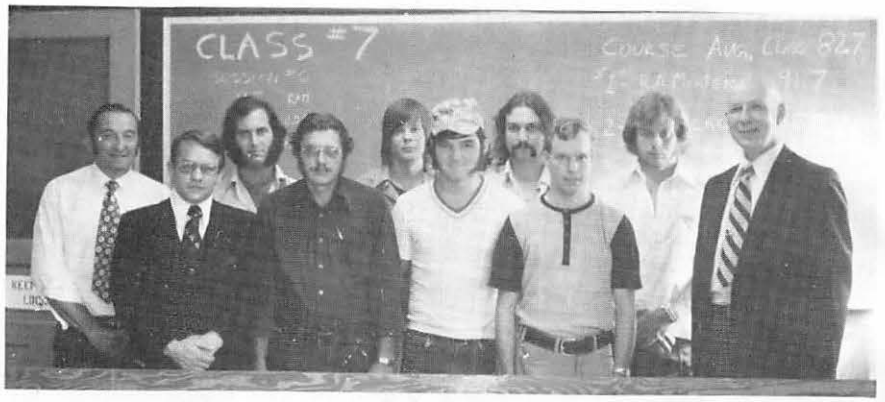


CTC machine has displays for 35 miles of ctc and 86 miles of abs.



Class 7 of basic signal training was held at Milwaukee, and shown here (left to right) are: **M. A. Haight,** senior signal inspector; **Roland Addison; Dan Hammersmith** and **Dan Pierce** (local 219) **Jim Romandy; Kevin Kriigel** (local 61); **Pat Harrington** (local 219); **Bob Mertens** (local 61); **Mike Manska** (local 220) and **Donald L. Wylie,** assistant chief engineer signals & communications.

form training for prospective signalmen and signal maintainers throughout the railroad," says Donald L. Wylie, assistant chief engineer signals & communications. "The resulting training program is a combination of signal theory and application designed to enable students to approach field assignments with confidence and to prepare graduates for advancement," Wylie said.

Rock Island has upgraded signal equipment in two major areas: (1) a new automatic switching system replacing obsolete equipment has been installed at the Silvis, IL retarder classification yard; and (2) centralized traffic control is now in service between Des Moines and Newton, IA about 35 miles with a new control machine at the dispatcher's office in Des Moines.

At Silvis, the new Safetran Systems Corp. equipment replaces German-built units installed in 1957. **Fred Berneking,** first trick signal maintainer and **H. E. Clark,** signalman from the Silvis signal shop worked nearly two months on the conversion project. Over 1,500 separate wires from the old machine had to be mated to the new one. The job was simplified by connecting the wires to plug-couplers so that it would simplify the work on the cutover date. Only two hours and 35 minutes were actually needed to take out the old machine and install the new one. Brothers Berneking and Clark are members of Rock Island local 183.

The new ctc machine at Des Moines has an added feature not usually found on conventional control machines. This machine displays the indications of block signals on an additional 86 miles of line east of the ctc territory. Circuitry was added to provide these abs indications, but the dispatcher has no control over the signals. However, knowing the signal indications and train locations, he is better able to plan meets in his adjacent 35 miles of ctc territory.

The ctc machine, also made by Safetran, has a pushbutton keyboard to enable the dispatcher to select the controlled points and to control switches, signals, switch heaters and signal maintainer's call. As he operates the keyboard, a luminescent display readout is activated to verify what action he is calling for.

Personal Aids and News

From Sec.-Treas. R. T. Bates: How to obtain credit for military service under Railroad Retirement Act

A large proportion of the men working in the railroad industry have served in the Armed Forces of the United States. The following questions and answers explain how they can receive credit under the Railroad Retirement Act for their military service.

(1) Under what conditions can an employee's military service be creditable as railroad service under the Railroad Retirement Act?

The individual must have entered the Armed Forces either involuntarily **or** while the United States was at war or in a state of national emergency, and he must have worked in the railroad industry during the year he entered military service **or** in the preceding year.

(2) What are the dates of the periods during which the United States was at war or in a state of national emergency, that the U.S. Railroad Retirement Board uses in crediting military service as railroad service?

Starting with World War I, these are:

- April 6, 1917, through November 11, 1918;
- September 8, 1939, through June 14, 1948;
- December 16, 1950, to date.

(3) How can military service be used to increase a railroad retirement annuity?

If the military service is creditable as railroad service, the employee can get credit for a month of railroad service for each month of creditable military service, and credit for certain amounts of compensation. The credits based on military service are then used in the calculation of both the tier I and tier II amounts payable under the new railroad retirement laws. The tier I portion of an annuity is based on combined railroad retirement and social security credits and tier II on railroad service alone.

If necessary, such military service credits could be used to meet the basic 120-month service requirement for a regular annuity or the 25-year service requirement for a supplemental annuity and/or for other advantages.

(4) Under what conditions would it be advantageous for a railroad employee's military service to be treated as social security credit?

If treated as social security credit, military service could help to qualify for social security benefits, and/or be included in the computation of any social security benefits due the employee. If an individual's military service is treated as social security wages, he could also receive credit for it in the tier I portion of his railroad retirement annuity since the tier I portion is based on combined railroad retirement and social security credits, but it could not be used in tier II calculations. When military service is treated as social security credit, it cannot also be treated as railroad service credit.

(5) How is it determined whether an individual's military service will be treated as railroad service or as social security credit in those cases where it could be treated as either?

Rail employees have had the option of claiming it at either agency. The Board has advised employees to first contact a Railroad Retirement Board office so that a Board representative can help them make the best decision. Instructions are currently being prepared to permit the Board to make this decision for the employee, subject to his approval.

(6) If I am eligible for benefits from the Veterans Administration, can my military service also be creditable for railroad retirement or social security benefits?

Yes, but if your military service is treated as railroad service, there is an adjustment in your railroad retirement annuity to prevent duplication of benefits. If the military service is treated as social security credit, there is no military service reduction in either your railroad retirement annuity or social security benefit.

(7) I did not go to work for a railroad until after my discharge

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from the Army in 1947. Does this mean that my military service will not be creditable?

It will not be creditable as months of railroad service under the Railroad Retirement Act, but it can be creditable as wages under the Social Security Act. If your military service is treated as social security credit, it will be used in calculating your social security benefits as well as tier I, but not tier II, of your railroad retirement annuity.

(8) I spent only 8 years in the railroad industry, but I was working for a railroad at the time I entered the Navy in 1957. Will this military service be creditable under the Railroad Retirement Act or under the Social Security Act?

If your total creditable service—rail and military combined—equals at least 120 months, you have the 10 years of creditable service required to qualify for an annuity under the Railroad Retirement Act. If you do not meet the 120-month requirement on this basis, your military service, as well as your railroad service, will be treated as social security credit.

(9) I work for a railroad and am a member of the Army Reserve. Could my active duty training and summer camps be creditable?

Yes, and if you were ever called to active duty during the continuing national emergency, which first began December 16, 1950, that service would also be creditable.

(10) I was in the United States Merchant Marine for 3 years during World War II. Can I receive credit for this service?

No. Service with the Merchant Marine or civilian employment with the Department of Defense is not creditable.

(11) Were retirement taxes deducted from my pay when I was in the Army?

Since 1957, social security taxes have been deducted from the pay of members of the Armed Forces. However, credit under the Railroad Retirement Act or Social Security Act is given for years before 1957, as well as after.

If an employee's military service is treated as railroad service, a flat amount of $160 per month of creditable military service is credited as railroad compensation for years prior to 1968 and $260 per month for military service performed in the years from 1968 through 1974. For years after 1974, the amount of actual pay is creditable, subject to certain maximums.

How to save on taxes, light bills and prescriptions

By Sidney Margolius

(Editor's Note: Mr. Margolius' column in the March issue of The Signalman's Journal, page 24, explained how certain job hunting costs could be considered deductions on federal income tax forms. The following outlines reports that the Internal Revenue Service has broadened its rule on making job-hunting expenses deductible.)

In an action of great value to the many job hunters in the current recession, the Internal Revenue Service has broadened its rules on deductions for expenses incurred in seeking employment.

The new ruling vindicates at least in part this column's previous contention that job-hunt expenses should be deductible whether or not you get the job. Some readers who consulted local IRS offices about our statement encountered a flatly negative attitude from some officials who maintained that such expenses are deductible only if the job-hunt is successful.

We had based our contention on the fact that a number of Tax Court cases had ruled in favor of taxpayers who had deducted such expenses even when the expenses did not result in a job.

Now the IRS officially has changed its long-held position to reflect the court decisions. The Service now says that expenses incurred in seeking a job in the same trade or business are deductible whether or not you actually get the job.

But expenses are **not** deductible if you are seeking employment in a new trade or business or if you are just coming on the job market, according to Wilson Fadely, of the IRS main office.

There's still a gray area in relation to people returning to the job market after a lapse of time, such as a retired worker who may later look for work or a housewife going back to work. If there's "a substantial lack of continuity" between the last job and the new hunt for employment, the expenses may not be deductible. No specific number of years has been established. The circumstances would have to be examined in each case, Fadely comments.

Even the requirement that the job hunt must be in the same trade or business is a little blurred, especially for working people. Fadely explains that the IRS would look at the skill more than the business where it is used. Thus, a steel-mill worker who becomes a salesman could not deduct expenses incurred in seeking that new job. Nor could a stenographer who becomes a model. But an auto mechanic who becomes an airplane mechanic, or a taxi driver who seeks a job as a bus driver, could.

If the job search qualifies, among deductible expenses are employment agency fees, job-counseling fees, costs of preparing resumes, travel and long-distance phone expenses; in fact, any expenses closely related to looking for work, as Fadely puts it.

Any out-of-town trips in search of work need to be related primarily to seeking a job. The amount of time spent on the job on personal activity compared to looking for a job would be important in determining whether the travel and lodging expenses incurred are personal or mainly for employment. But even if a trip is mainly personal, some expenses incurred in seeking employment while at your destination may be deductible, tax authorities say.

What about local bus and subway fares or car expenses while looking for a job? You can deduct the usual car-business allowances of 15 cents a mile plus parking and tolls for your car, and any public-transportation expense. You should keep travel receipts or maintain a written record or tax diary listing out-of-pocket expenses, where you went, to what company, and any correspondence or documentation in case you are ever questioned.

WHAT ABOUT LIGHT BILLS?

(Please turn to page 20)

NAM Cont'd

READER ASKS. "Will you save on your light bills if you turn them off every time you walk out of the room or will the bulb cost more to replace than you save?" asks reader G. E. S. "What about hot water?"

Incandescent bulbs are not affected by switching them on and off. But the life of fluorescent tubes is related to the number of starts. Still, the curtailment of tube life has been exaggerated to the extent that some people tend to leave on fluorescent tubes overly long. One study found that an "off time" of 15 or 20 minutes is the break-even point in deciding whether to turn off fluorescent lighting. Since the price of electricity has gone up more than the cost of tubes, it probably will pay to turn off the lights even if you will be gone only 10 minutes or so.

Fluorescent tubes provide three to four times more light per watt than do incandescent bulbs. Your choice is limited, of course, by present fixtures. Fixtures that can adapt incandescent outlets to fluorescent lighting have been announced, but we haven't seen them in stores yet.

For incandescent lighting, higher wattage bulbs are more efficient. One 100-watt bulb produces more light (1750 lumens) than two 60-watt bulbs (two x 860 lumens or a total of 1720). Similarly, a 75-watt bulb gives more light than two 40's.

For the same wattage, standard bulbs (750 to 1,000 hours life) are more efficient than so-called long-life bulbs (2,500 hours). A 100-watt standard bulb gives 1,720 initial lumens; a 100-watt long-life bulb, 1,620. Use the long-life bulbs only in hard-to-reach fixtures.

You're right in raising the cost question about hot water, too. Hot water is the second biggest heating expense in a home—next to heating the house itself. Electric water heaters are the costliest appliance in most homes except for an air conditioner in the hot months. On average, a quick-recovery water heater now costs $175-$200 a year to operate and a standard heater, over $150 and even more in many eastern cities.

A temperature setting of 140 degrees is enough for laundering. In fact, higher settings will shorten the life of glass-lined tanks. As reported here previously, tests have shown that you can get laundry clean even in cold water. Most families, however, still prefer hot water for sanitary reasons and effective cleaning of heavily-soiled garments. Of course, disinfectants can be added to the water. If you use a dryer, its heat will destroy bacteria in any case.

Either way, you can still use a cold water rinse. You also can separate synthetics and wash these in warm water and cold rinse. Another hot-water saver is washing lightly-soiled clothing separately in a quick cycle and cold rinse.

In general you save both hot water and electricity if you wait for a full load, which also launders more effectively since the clothes "scrub" each other.

It's cheaper to extract extra water in the spin cycle of your washer than in a dryer. So take full advantage of the washer's spin-dry cycle. In using a dryer, do a full load when possible but avoid overloading which lengthens drying time and further burdens the drive motor. Nor can you necessarily rely just on automatic dryness controls.

Avoid overdrying and needlessly high temperatures which also are hard on fabrics. Keep the lint filter clean to permit free air circulation. Also remove dust and lint from the exhaust vent to maintain drying efficiency and to guard against lint fires.

One frequent problem is old tanks with worn out insulation. If you do replace a water heater, the "ten-year" models not only are guaranteed to last longer but are better insulated and thus cost less to operate.

It may help to have hot water tank valves opened to draw off the bottom water. Accumulations of sediment interfere with heat transfer.

If the hot-water pipes for your domestic water supply have a long "run" from your water heater, insulating them is fairly simple with fiberglas pipe insulation or preformed polyurethane insulation which slips over pipes.

In view of the present high utility rates, it pays to practice all the other common-sense savers such as repairing leaky faucets right away and using a fine spray for showers.

But not even these conservation

THE RAIL FREIGHT AUTOMATION EQUIPMENT MARKET

By 1985 the railroads which provide premium and regular train service will have spent $830 million for rail freight automation equipment and another $150 million for COFC-only chassis cars. Annual sales — $8 million in 1975 — will accelerate toward the end of the decade and hit $97 million in 1981 and top $250 million by 1985.

Frost & Sullivan has completed a 218-page report analyzing and forecasting the market to 1985 for: onboard monitoring and obstacle detection equipment to be used on premium trains; automatic retarder systems, radio-controlled engines and automatic couplers for regular train service; dynamic inspection systems, hot box detectors and ACI scanners for fixed facilities; and special COFC-only chassis. Markets for other items, including premium grade trucks, integral COFC trains, field container transfer facilities and truck-rail ACI-based communications, are also considered. Carload projections to 1985, by commodity handled (including those for premium trains), are used as a base for the forecasts. Growth catalysts are discussed, by commodity. Railroad safety requirements are reviewed; the rate at which new trains will be purchased and freight yards will be upgraded with modern technology is determined; and an outlook for rail containerization is furnished.

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methods, while urgently required for self defense against ruinous bills, are going to keep down electric bills by themselves. A big problem has been the policy of most state utility commissions of allowing "fuel adjustments" and other pass-throughs of increased expenses without adequate evaluation or trying to get the utility companies to economize in other ways. Why economize on a cost if it can be passed on automatically, Senator Lee Metcalf (D., Mont.) recently pointed out.

One controversy is whether utilities should be permitted to charge construction costs for new facilities as part of current operating expenses.

In Connecticut, independent experts recently asserted that a utility company had used less oil than it had charged for in its fuel-cost adjustment fee. The independent experts asserted that the utility exaggerated the amount of oil needed to produce a kilowatt hour of electricity.

In New York, state officials asserted a major utility company there had excessive billing, collection and other costs.

Because of these disputes, in some states consumer and public-interest groups have been organized to challenge "pass-through" and other elements of rate increases.

FDA PROPOSAL WOULD CUT PRESCRIPTION COSTS. As many people have come to realize, you can cut the cost of prescriptions sharply—often by half or more—if your doctor prescribes drugs by their generic name and your pharmacist fills the Rx with a low-priced generic equivalent.

For example, we compared a list of 23 widely-prescribed medicines. The average usual price of the brand-name versions was $11.32. The average price of the brand-name drugs at cut-rate stores was $8.16. But the average price of these medicines under their generic or common names was $4.72.

Thus, you could save an average of 28% on the list, or usual, prices by having the prescription filled at a cut-rate pharmacy. But if the doctor prescribed and the pharmacist provided a low-priced generic equivalent, the average saving on our list of 23 drugs would be 62%.

As a typical example, we found tetracycline Rx's which called for brand-name products typically cost $8.30 to $10.50 per 100 at full-price pharmacies, and $6.20 to $6.95 at cut-rate stores but were $3.95 to $4.50 under generic names.

The price differences for some medicines is even greater, especially for prednisone and reserpine which may cost three or four times more under a brand name than a generic name.

But many doctors still tend to prescribe by brand name, although more and more use generic names, especially for the tetracycline antibiotic drugs. One reason for doctors' preference for brand-name drugs is that they are more familiar with them. But they also are concerned about effectiveness. In several cases drugs that were chemically equivalent were found not to have the same degree of "bio-availability" as measured by the amount of active ingredient in the blood stream at set times after medicines were taken.

Bio-availability may differ among different brands of the same drug because the manufacturers may use different "binders," preservatives or other inactive ingredients, or may make them too compacted or too loosely pressed, which will affect the dissolution rate, or even because of variations in quality control in different factories.

Actually the issue of bio-equivalence may have been over-emphasized. Brand-name drug manufacturers have stressed it. But the Food and Drug Administration reports there are few documented differences and those are being supervised. In digoxin, one of about a dozen drugs in which variations have been found, for some time FDA has tested all batches manufactured.

In fact, a committee headed by Dr. Robert Berliner, dean of the Yale School of Medicine, while noting that the issue is a real one, estimated that 85% of all drugs are used in therapies which do not require close tolerances. Moderate degrees of variation in most products don't affect the therapeutic result, Dr. Berliner said.

Now FDA has proposed new regulations which will assure both doctors and patients that different brands of the same medicines will be equal in biological activity. If you or your doctor were concerned

(Please turn to page 22)

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PA&N Cont'd

about this question, the final implementation of the regulations, expected late this summer, would make it possible for you to select the least-expensive brand with assurance of quality.

To provide the wanted assurance, FDA proposes to require manufacturers of generic drugs to make tests to show that their products really are bio-equivalent. By the end of this year any products that still vary in bio-equivalence should start going off the market.

Interestingly, some of the brand-name manufacturers also may have to review the biological activity of their products. It has been previously reported that FDA has found some variations among both brand-name and generic drugs and with large as well as small manufacturers.

BofRS convention to meet in Quebec

The sixth triennial and 40th regular convention of the Brotherhood of Railroad Signalmen will be held August 9 through 13, 1976 at Le Chateau Frontenac, Quebec City, Quebec, Canada. The convention begins on a Monday.

Fish are nutritious and easy to cook

One way to lower the family food budget is to eat more fish. Almost all 240 varieties of fish are economical, low in calories, high in protein, easy to digest and contain high amounts of B vitamins and minerals. "Let's Cook Fish" is a booklet from the National Marine Fisheries, and sells for $1.25 from Consumer Information, Dept. 38, Pueblo, CO 81009.

One helpful hint on cooking concerns color change of the fish. Raw fish have a watery, translucent look. While cooking, the watery juices become milky colored, giving the flesh an opaque, whitish tint. When the center of the thickest part of the fish has taken on this whitish tint, the fish is done. At this point, test the fish with a fork—if the fish easily separates into flakes, and if the flesh comes away easily from the bones, the fish is cooked just right.

People

EDISON BATTERY DIVISION, McGraw-Edison Company: **Elvin R. Beck,** field engineer, has been appointed manager-rail transit, with headquarters at Bloomfield, NJ.

GENERAL RAILWAY SIGNAL CO.: **Edwin G. Vineall,** program field test manager for the Washington, DC automatic rapid transit project, has been appointed manager of application engineering with headquarters in Rochester, NY.

PENN CENTRAL: **Harvey Alexander,** system engineer communications & signals maintenance, appointed chief engineer C&S, succeeding **Joseph J. Eash,** retired. **James A. Early,** engineer C&S construction, appointed system engineer C&S maintenance. **John G. Cunningham,** engineer C&S staff appointed engineer C&S construction. All are headquartered at Philadelphia, PA.

SAFETRAN SYSTEMS CORP: **William H. Kendall,** retired president of the Louisville & Nashville, has been elected a director.

SOUTHERN: **Andrew J. Farmer, Jr.,** budget analyst, appointed material coordinator C&S, at Atlanta. **John D. Holland,** supervisor C&S, appointed budget analyst C&S. **Forrest H. McIntyre,** assistant general superintendent operations C&S, appointed general superintendent C&S. **Rayford C. Pace,** signal and electrical superintendent, appointed assistant general superintendent-operations C&S. **Jack E. Rupp,** general superintendent construction C&S, appointed engineering director C&S. **James R. Strickland,** superintendent C&S, appointed general superintendent-construction C&S. All the above men are headquartered at Atlanta, GA. **Howard F. Waller,** C&S supervisor, Birmingham, retired January 1975.

PENN CENTRAL: **B. T. Ervin, Jr.,** appointed supervisor communications & signals at New York.

BURLINGTON NORTHERN: **Harold S. Walden,** signal supervisor, Havre, MT, retired recently.

MISSOURI PACIFIC: **William G. Armstrong** appointed assistant director of labor relations.

SOUTHERN: **George L. Bell** has been appointed supervisor c&s at Macon, GA.

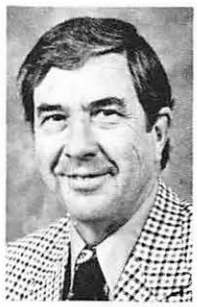
SANTA FE: **B. J. Hutton,** assistant to superintendent of signals-system, appointed superintendent of signals-system succeeding **O. C. French,** who retired. **Robert W. Convey,** project engineer-signals, appointed assistant to superintendent of signals-system. Both men will be headquartered in Chicago.

SAFETRAN SYSTEMS CORP.: **W. T. Goff** appointed manager South Central Region with headquarters at Chicago. **C. E. Shepherd** appointed manager Mid-West Region, same headquarters. **Ronald Rudnicki,** sales and service engineer, Northern Region, Minneapolis, appointed manager North Eastern Region with headquarters at Claymont, DE, succeeding **D. E. Emery** assigned to other duties. **D. C. Ferryman,** sales and service engineer at St. Louis, MO, promoted to manager Southwestern Region with no change in headquarters. **A. J. Bennett** appointed manager Canadian Region with headquarters at Dollard Des Ormeaux, PQ. **P. L. Buttram,** sales and service engineer at Grain Valley, MO, transferred to Louisville, KY.

E. R. Beck
Edison Battery

E. G. Vineall
Gen Ry Signal

R. W. Convey
Santa Fe



B. J. Hutton
Santa Fe

Obituaries

Thomas J. Read, retired inspector of communications and signals for the Pennsylvania, at East Palestine, OH, died October 23, 1974 at the age of 87. Brother Read had completed 47 years of service on his retirement in 1956. He was a member of Unity Local No. 2.

Frank Swanson, retired signal maintainer at Elmira, NY, for the former Delaware, Lackawanna & Western, died recently. Brother Swanson had completed 37 years with the railroad upon his retirement in 1959.

Russell G. Acons, retired signalman, Richmond, Fredericksburg & Potomac, died recently. Brother Acons was a member of Buchanan Local No. 138.

David L. Miller, assistant signal supervisor, Lake Erie Division, Norfolk & Western, died August 12, 1974.

George Dunay, retired signalman, Union railroad at East Pittsburgh, PA, died recently. Brother Dunay, a member of Local No. 193 had completed 16 years service on the railroad when he retired in 1959.

George E. West, retired Penn Central signalman, died recently. Brother West retired in 1972 and he was a member of Akron Local No. 109.

Emanual B. Peterson, 79, retired signal shop foreman, Union Pacific, died recently. Brother Peterson was a member of Rock Springs Local No. 8.

John H. Byrne, 74, retired relay repairman, Union Pacific, Omaha, NE, and Pocatello, ID signal shops, died recently. The officers and members of Rock Springs Local No. 8 extend their deepest sympathies to the members of Brother Byrne's family.

Albert G. Lake, 83, retired signal man, Battery Charging Station, Union Pacific, at Grand Island, NE, died at Grand Island. Brother Lake retired July 31, 1959 and was a member of Rock Springs Local No. 8. The officers and members of the local extend their deepest sympathies to the members of Brother Lake's family.

William Iliff, retired leading signal maintainer for the New York Central at Kentland, IN, died recently. Brother Iliff retired in 1969 after completing 46 years of service with the railroad. He was a member of Givan Local No. 15.

Floyd A. Still, retired signal maintenance foreman, Delaware & Hudson, at Oneonta, NY, died August 30, 1974 at Binghamton General Hospital. Brother Still was 78 and had been a member of Susquehanna Local No. 75. He retired in 1961 after having served 45 years with the railroad. Brother Still was very active in the BofRS and had served as chief signalman, recording and financial secretary and local chairman of Susquehanna Lodge No. 75. The members and officers of this lodge extend their deepest sympathy to the members of Brother Still's family.

George E. Harwood, retired signal maintainer at Clinton, IN, for the Chicago & Eastern Illinois, died recently. Brother Harwood had completed 43 years of service with the railroad when he retired in 1958. He was a member of Local No. 174.

Daniel E. Woods, retired signal helper, Illinois Central, at Waterloo, IA, died October 5, 1974 at Freeport, IL. Brother Woods was a member of East Dubuque Local No. 29. He had completed 23 years of service with the railroad when he retired in 1965. The officers and members of Local 29 extend their deepest sympathy to his widow and the members of his family.

M. E. Hartman, retired inspector of communications and signals for the Penn Central at Vandalia, IL, died recently. Brother Hartman had completed 43 years of service with the railroad when he retired in 1970. He was a member of Terre Haute Local No. 142.

J. E. Johnson, retired signal maintainer on the Kansas City Southern, died last September. Brother Johnson retired in 1969 after completing 24 years with the railway. Prior to that he had served in the signal department of the Southern Pacific. Brother Johnson was a member of Local No. 185. He is survived by his wife, Virginia. Brother Johnson was a resident of Siloam Springs, VA.

Homer J. Stocker, retired signal maintainer, Central Railroad of New Jersey, died recently. At the time of his retirement in 1972 Brother Stocker was located at Plainfield, NJ and he had completed 30 years service with the railroad. He was a member of McAdoo Local No. 54.

Frank P. Beitel, retired telegraph and signal foreman for the former Pennsylvania, at Pittsburgh, died recently. Brother Beitel retired in 1961 after completing over 42 years with the railroad. Upon retirement he lived in Manor, PA. Brother Beitel was a member of Greensburg Local No. 62.

J. R. Estes, Jr., of Decherd, TN, retired signalman on the Central of Georgia, died recently. Brother Estes leaves a widow, Mrs. Virginia Scott Estes, a son John Scott, and two sisters. He was active in the BofRS and had been a member of F. B. Stanley Local No. 11 and had served as general chairman of the Central of Georgia for the BofRS.

Chester C. Brite, retired signalman, San Joaquin Division of the Southern Pacific, died recently. Brother Brite was a member of Los Angeles Local No. 104.

Guy W. Petty, retired signal maintainer on the Tucson Division of the Southern Pacific, and a member of El Paso Local No. 182, died recently.

Clyde J. McPherson, retired signal foreman, Chicago & North Western, Des Plaines, IL, died January, 1975. Brother McPherson retired in 1959 after completing 50 years of service with the railroad. He was active in BofRS affairs and had been recording and financial secretary and local chairman of Local No. 130.

Anthony J. Unhock, retired signal testman, Rock Island Lines, Little Rock, AR, died recently. Brother Unhock had completed 48 years service with the railroad when he retired in 1965. He was a member of Martin Local No. 17.

Max M. Knight, retired signal foreman, Missouri Pacific, and a

(Please turn to page 24)

Obits Cont'd

member of Robertson Local No. 206, died last year. Brother Knight retired in 1961 after completing 46 years service working in the signal departments of various railroads including the Pennsylvania, Lackawanna, C&O, Burlington, Wabash, and Missouri Pacific. He was active in BofRS affairs having been chief signalman during his service on the Pennsylvania and when employed by the International Great Northern and Gulf Coast Line of the Missouri Pacific he had served as local chairman.

Daniel J. Fitzgerald, retired leading signal maintainer for the former New York Central, at Sandusky, OH, died recently. Brother Fitzgerald left the railroad in 1959 after 27 years of experience to join the Bureau of Safety of the Interstate Commerce Commission as a Signal and Train Control Inspector. Brother Fitzgerald was active in BofRS affairs having been a long time member of Lake Shore Local 96 and had served as recording and financial secretary.

Nels A. Johnson, retired leading relay repairman for the Northern Pacific, in St. Paul, MN, died recently. Brother Johnson had completed 50 years service with the railroad when he retired in 1958. He had been active in BofRS affairs having belonged to St. Paul Local No. 87 and had served as trustee of that local.

Robert N. Taylor, retired signal mechanic for the former New York Central, at Buffalo, NY, died recently. Brother Taylor had completed 33 years of service with the railroad when he retired in 1958. He was a member of Construction Local No. 177.

R. E. Smiley, retired signal maintainer for the Missouri Pacific at Hope, AR, died January 31, 1974. Brother Smiley had completed 41 years of service with the railroad upon his retirement on January 1, 1973. He was a member of Missouri Local No. 72 and had served as local chairman.

R. L. Hansen, retired assistant engineer, Southern Pacific, at San Francisco, CA, died. Brother Hansen completed 46 years service with the railroad when he retired in 1962. He was a member of Oakland Local No. 92.

W. C. Claman, retired signal supervisor, Springfield, MO, died in January 1975. Brother Claman was a member of Frisco Local 129.

O. W. Clayton, retired signal helper at Springfield, MO and a member of Frisco Local 129, died last January.

Dallas Okey Long, retired signal maintainer at Huntington, WV, on the Chesapeake & Ohio, died last fall. Brother Long retired in 1972 and was a member of Tri-State Local No. 136.

W. H. Lewis retired trustee chairman dies

William Henry Lewis, retired chairman Grand Board of Trustees and former general chairman Santa Fe died July 13 in St. John, KS. Brother Lewis was born on June 25, 1903 in Oak Park, IL. He was a graduate of Lane Technical High School in Chicago specializing in the electrical courses. He began his signal career on the Santa Fe as a helper at Hutchinson, KS in November 1922. The following year, Brother Lewis became signal maintainer at Kinsley, KS. He served in various Kansas locations as maintainer, but settled at St. John in 1930. He joined the BofRS in 1923 as a member of Rocky Mountain Local 161. By 1932, Brother Lewis was a local chairman and a year later was elected general chairman of the Santa Fe General Committee. The general chairman's position was part-time then, but was made a full-time position in February 1944. Brother Lewis served as general chairman until his retirement in 1970. He had served as a member of the Grand Board of Trustees since 1941. He was elected chairman in 1945 and held that position until his retirement.

In addition to these duties, Brother Lewis always found time to help others. For example, he was a trustee of the Santa Fe Hospital Association from 1951 to 1970. During World War II, he served as a member of Region 9 War Manpower Commission Board. He served on many community projects in St. John, KS, among them to raise funds for the first hospital in the town. He was a member of the Masonic Lodge, Ionic Lodge No. 254 AF&AM (served as a trustee); a member of the Scottish Rite Consistory and Median Shrine of Wichita, KS; and

William H. Lewis (center) retired Santa Fe general chairman and chairman, grand board of trustees, BofRS, visited the Mt. Prospect, IL headquarters building last fall. **R. R. Van Vacter,** Santa Fe general chairman (left) and **W. B. Harwell, Jr.,** grand lodge representative are with Brother Lewis. Since his visit, the meeting room at headquarters has been named "The Lewis Room" marked appropriately with a brass plaque on the door and Brother Lewis' picture in the room.

a member of BPO Elks Lodge No. 1451 of Pratt, KS.

Funeral services were held July 16 at the Methodist Church in St. John. Those in attendance included C. J. Chamberlain, president, BofRS; R. T. Bates, secretary-treasurer; vice-presidents W. W. Altus, and M. B. Frye; W. B. Harwell, Jr., grand lodge representative; W. W. Lauer, chairman grand board of trustees, BofRS; R. R. Van Vacter, general chairman, Santa Fe, and over 100 other members of the BofRS. A Masonic service was conducted at the graveside.

Brother Lewis is survived by his wife Irene, son William H. Jr., a daughter Beth and several grandchildren.

Grand Lodge Officers on behalf of all our members express our sincere sympathy to the members of Brother Lewis' family.

R. E. Fadely, retired signal maintainer, former Pennsylvania, at Xenia, OH, died recently. Brother Fadely retired in 1967 and was a member of Favorite Local 79.

A. E. Bourgeois, signal gang foreman, on the Texas & Louisiana lines, Southern Pacific, at Lafayette, LA died May 18, 1975. Brother Bourgeois was a member of Gulf Coast Local 99.

Walter H. Hensroth, a member of Rock Springs Local No. 8 on the Union Pacific, died March 18, 1975. Brother Hensroth started work with the signal department May 14, 1923 and retired in 1957 after 34 years of service with the railroad. He was foreman of the signal gang for many years and was holding this position when he retired. He was 84 when he passed away at his home at 118 Jay, Topeka, KS. He was born January 7, 1891 at Wamego, KS, where he spent his early life. He lived in Topeka about 50 years. He was an Army veteran of World War I. Brother Hensroth was a member of the UP Old Timers Club and of the Jayhawk Barracks No. 1113 of World War I Veterans. He was married to Theresa Shehi, December 24, 1922 at Lawrence, KS. She survives. Other survivors include two daughters, Mrs. Louise Knight and Mrs. Alice McEwen; a son, William J. Hibbert; two sisters, Mrs. Agnes Nyman and Ann Hensroth; a brother, George Hensroth; six grandchildren and nine great-grandchildren. Local 8 officers and members extend our deepest sympathy to his widow and the members of his family.

Marion W. Brown
Local Chairman

C. S. Warden, retired general chairman, Missouri Pacific, and signal maintainer at Garnett, KS died June 27. Brother Warden had completed 39 years of service with the railway when he retired in 1972. He was a member of Missouri local 72 and had served as local chairman and trustee. The officers and members of MP BofRS locals extend their sympathies to the members of Brother Warden's family.

Watson Mayhood, retired signal maintainer at Effingham, IL, died. Brother Mayhood had completed 48 years service on the Illinois Central when he retired in 1956. He had served as recording and financial secretary of Gillman Local No. 81.

RS&I

Sec. 236.565 Provision made for preventing operation of pneumatic brake-applying apparatus by double-heading cock; requirement.

Where provision is made for preventing the operation of the pneumatic brake-applying apparatus of an automatic trainstop or train control device when the double-heading cock is placed in double-heading position, the automatic train stop or train control device shall not be cut out before communication is closed between the engineman's automatic brake valve and the brake pipe, when operating double-heading cock toward double-heading position.

Sec. 236.566 Locomotive of each train operating in trainstop, train control or cab signal territory; equipped.

The locomotive from which brakes are controlled, of each train operating in automatic trainstop, train control, or cab signal territory shall be equipped with apparatus responsive to the roadway equipment installed on all or any part of the route traversed, and such apparatus shall be in operative condition.

Sec. 236.567 Restrictions imposed when device fails and/or is cut out enroute.

When an automatic trainstop, train control, or cab signal device fails and/or is cut out enroute, train may proceed at restricted speed or if an automatic block signal system is in operation according to signal indication but not to exceed medium speed, to the next available point of communication where report must be made to a designated officer. Where no automatic block signal system is in use train shall be permitted to proceed at restricted speed or where automatic block signal system is in operation according to signal indication but not to exceed medium speed to a point where absolute block can be established. Where an absolute block is established in advance of the train on which the device is inoperative train may proceed at not to exceed 79 miles per hour.

Sec. 236.568 Difference between speeds authorized by roadway signal and cab signal; action required.

If for any reason a cab signal authorizes a speed different from that authorized by a roadway signal, when a train enters the block governed by such roadway signal, the lower speed shall not be exceeded.

Subpart F—Dragging Equipment and Slide Detectors and Other Similar Protective Devices Standards

Sec. 236.601 Signals controlled by devices; location.

Signals controlled by devices used to provide protection against unusual contingencies, such as landslides, dragging equipment, burned bridges or trestles and washouts shall be located so that stopping distance will be provided between the signal and the point where it is necessary to stop the train.

NAM Cont'd

signal maintainer at Clifton Forge, VA, and a member of Clifton Forge Local 89, retired January 4. **George Martin,** signal maintainer at Richmond, VA, and a member of Richmond Local No. 148, retired February 7. **W. B. Salmons,** signal supervisor at Richmond, VA, and a member of Tri-State Local No. 136, retired October 1.

C. A. Young, signal maintainer at North East, MD, and a member of Monumental Local No. 31, retired August 24, 1974. **Clyde Reese,** signal maintainer at Clare, MI, and a member of Valley City, Local No. 123, retired October 1. **David Morgan,** signal maintainer, Columbus, OH, retired August 1. **George Roller,** lead signal maintainer, Prospect, OH, retired July 25. Brothers Morgan and Roller are members of Hocking Local No. 216.

DELAWARE & HUDSON: **Sylvester L. Brackett,** signal maintainer at Whitehall, NY, retired January 4. **George S. Hodges,** signal shop foreman, at Colonie, NY, retired January 23. Brothers Brackett and Hodges are members of Local No. 147.

SOUTHERN: **Max O. Willis,** signal maintainer, Blacksburg, SC, retired in January 1975. Brother Willis is a member of Walters Local No. 110.

Burlington Northern: **W. C. Bradley,** ctc maintainer at Benkelman, NE has retired. "Bill" began his signal work as helper on the McCook division on June 20, 1935. Promoted to assistant signalman in November 1935 he also worked as assistant maintainer at Fall City, NE in the summer of 1937 and 1939. He followed construction and worked as leading signalman until December 6, 1944 when he went to Benkelman, NE as maintiner. He retired as ctc maintainer on January 31, 1974 after 38 years and 7 months. Brother Bradley is a member of Lincoln Local No. 119. "Bill" is affiliated with the United Methodist Church and the IOOF Lodge in Benkelman. Hobbies are bowling and just getting lots of exercise, reports secretary-treasurer Melvin Ivins of Lincoln Local No. 119.

SANTA FE: **R. A. Wood,** signalman, Illinois Division, has retired. Brother Wood is a member of Carrollton Local No. 20.

SOUTHERN PACIFIC: **William L. Brown,** signal maintainer, San Joaquin Division, and a member of Local No. 92, has retired.

BofRS member receives Boy Scout award

William J. Oseles, ctc maintainer for the Burlington Northern at Berthold, ND has been awarded the Silver Beaver Award by the Northern Lights Council, Boy Scouts of America. Brother Oseles is a member of Great Northern local 154.

The award is made for noteworthy service of exceptional character to boyhood by registered Scouters within the territory under the jurisdiction of the council. The Northern Lights Council has over 7,000 registered adult Scouters and only 12 may be awarded this honor each year.

Brother Oseles of Minot has had an active involvement with the Boy Scouts of America for many years. He was Pack Chairman of Pack 419 for 4 years, and in February of 1965 he became Scout Master of Troop 409 and remained in that position for 10 years to the current time. He has been a member of the Tomahawk district training, camporee, Order of the Arrow Lodge executive and district activities committees. Brother Oseles has received the Scouters Key which is presented to a Scout Master when he has received full training.

He is also a recipient of the District Award of Merit which is the highest award that the Tomahawk District can present to a volunteer Scouter.

Brother Oseles is a former member of Elks Club and a member of the VFW Post in Minot. He is a member of the First Lutheran Church. He is a member of the Employees Club of Burlington Northern and was president for two years. He was past PTA president of the Roosevelt School. Brother Oseles is married, has seven children, four boys, three girls and four grandchildren.

Brother Oseles and his wife are leaders in young peoples activities.

Quarter Century Service Pin is presented to **Ansel E. Littlejohn,** (right) leading signal maintainer at Barrington, IL, on the Elgin, Joliet & Eastern by **J. A. Harvey,** manager signal, communications and electrical facilities. Brother Littlejohn is a member of Joliet Local No. 97.

a member of BPO Elks Lodge No. 1451 of Pratt, KS.

Funeral services were held July 16 at the Methodist Church in St. John. Those in attendance included C. J. Chamberlain, president, BofRS; R. T. Bates, secretary-treasurer; vice-presidents W. W. Altus, and M. B. Frye; W. B. Harwell, Jr., grand lodge representative; W. W. Lauer, chairman grand board of trustees, BofRS; R. R. Van Vacter, general chairman, Santa Fe, and over 100 other members of the BofRS. A Masonic service was conducted at the graveside.

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Signals controlled by devices used to provide protection against unusual contingencies, such as landslides, dragging equipment, burned bridges or trestles and washouts shall be located so that stopping distance will be provided between the signal and the point where it is necessary to stop the train.

News from Canada

John E. Platt, vice-president, BofRS (third from right end foreground) participated in the signing of the Supplemental Agreement to the Employee Benefit Plan on March 20 at Canadian National headquarters.

Burman Lodge 165 meets in London

Canadian National Local 165 met recently in London, Ont. reports **John Kutz,** recording and financial secretary. Discussion centered on bylaws, company interpretation of job qualifications, another possible holiday and the status of construction work. Heritage Holiday is now in a bill before Parliament, but has not yet been passed.

At the present time, there is a slight shortage of construction work on the Great Lakes Region. Some gangs were sent to the Rideau area to work on ctc, Kutz reports. As soon as more work is available in the Great Lakes region, the gangs will return to home territory.

John Platt, vice-president, BofRS, informed members of his activities. Other members attending included **R. W. Laney, J. Johnston, S. Eaton, L. Leentjes, R. Dixon, B. Holliday, J. Carpenter, B. King, R. O'Hagen, W. Shaefer, M. Weymouth,** and **B. Lumley.**

CP RAIL: **Charlemagne Farand,** signal fitter "A", Atlantic Region Montreal, and **James Henderson,** signal maintainer at Montreal Terminals, have retired. Brothers Farand and Henderson are members of Victory local 144.

BofRS convention meets in Quebec in August 1976

For Canadian residents only:

Moving? Let us know!

Please send your new address to:

J. E. DuBois, Brotherhood of Railroad Signalmen, 1396 St. Catherine St. W., Suite 323, Montreal, Que. H3G 1P9

Name _____

Street or Box No. _____ **Apt. No.** _____

City _____ **Province** _____ **Zip** _____

Lodge No. _____ **Certificate No.** _____

News About Members

SOUTHERN PACIFIC: **R. E. Davis,** signal maintainer, Sacramento Division, and a member of Sacramento Local No. 179, has retired.

SANTA FE: **Henry A. Moore,** signal maintainer at Pueblo, CO, retired January 15, 1975. Brother Moore is a member of Rocky Mountain Local No. 161.

SOUTHERN: **R. C. McWhorter,** signalman, at Villa Rica, GA, retired last year. Brother McWhorter is a member of Miller-Griffith Local No. 49.

UNION PACIFIC: **D. Moffett,** signal maintainer at Shelton, NE, after having completed 35 years service with the railway, retired February 7. **L. D. Tow,** assistant signal supervisor at Lyman, CO, after having completed 48 years service with the railroad, retired January 5. Brothers Moffett and Tow are members of Rock Springs Local No. 8.

CHESSIE: **J. E. Baker,** signal maintainer at Flora, IL, retired December 1, 1974. **W. A. Lindsay,** signal inspector at Flora, retired September 7, 1974. **G. L. Douglas,** signal maintainer at Wellston, OH, retired July 1. **F. A. Appleman,** signal maintainer, Summit Station, OH, retired July 1. **E. R. Childers,** signal maintainer at Bethel, OH, retired September 14. All the above brothers are members of Winton Local No. 94.

M. B. Chandler, lead signal maintainer at Baltimore, MD, and a member of Monumental City Local No. 31, retired September 21. **Charles Wilburn,** assistant signal maintainer, Ashland, KY, and a member of Russell No. 139, retired January 3, 1975. **James Ketterer,** signal foreman at Ashland, KY, retired January 8. **Emmit G. Cronise,**

(Please turn to page 28)

$20,000 for $14.00 a year

Brotherhood of Railroad Signalmen Group Insurance Plan

(Member Only)

Optional Accidental Death and Dismemberment Plan Year-round . . . World-wide Protection . . . Group Rates . . . $20,000 to $100,000 . . . No Hazardous Work Exclusions

ON OR OFF THE JOB. AT WORK OR AT PLAY. ***Protects you for covered accidents at home, on and off the job, while you travel in your auto or covered air flights or other modes of transportation, and while you're skiing, swimming, mowing the lawn . . . or just about any other accident situation you can imagine. While this program is not meant to substitute for your life insurance, or health insurance (since loss due to sickness is not covered), it is designed to be an important addition to your personal insurance program because of the substantial coverage it provides for loss of life, limbs or eyesight . . . AT GROUP RATES THROUGH YOUR*** **BROTHERHOOD OF RAILROAD SIGNALMEN GROUP INSURANCE PLAN.**

ELIGIBILITY BROTHERHOOD OF RAILROAD SIGNALMEN members, age 69 and under are eligible for this coverage. If you choose the Family Plan, the one cost provides coverage for yourself, your Spouse, and all unmarried dependent Children (no matter how many) between the ages of 14 days and 19 years (through 22 years if a full-time student at an accredited college or university).

HOW BENEFITS ARE PAYABLE The benefit amount shown for the plan you select is payable for accidental loss of life, two limbs or the sight of both eyes (or one limb and the sight of one eye). One-half the benefits shown is payable for loss of one limb or the sight of one eye. In the event of multiple injuries to an insured person, only one amount is payable . . . the largest applicable.

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INCREASED COVERAGE FOR DEPENDENTS Family Coverage plans are designed to fit the needs of *Two-Parent* families, *One-Parent* families and the needs of *couples with no children.* In the Family Coverage, the benefit for your Spouse is 40% of your maximum amount and your Children's benefits are 10% of your maximum amount. However, if on the date of the accident no dependent children are covered, the coverage for your spouse automatically increases to 50%. Likewise, if no Spouse is covered, dependent Children coverage automatically increases to 15%.

PAYS IN ADDITION TO ANY OTHER INSURANCE YOU MAY HAVE Group Accidental Death and Dismemberment Insurance benefits are payable in addition to any other insurance, including sick leave, workmen's compensation and Medicare. Of course, you may own only one of these accident insurance plans.

RENEWAL PROVISION . . . to age 75. As long as the Master Policy remains in effect, you may continue to renew your coverage to age 75. Your coverage can be cancelled or premiums changed only if the same action is taken on all certificates of this form issued to the Group Insurance Trust.

Group Insurance Trust accident insurance plan is underwritten by Mutual of Omaha Insurance Company. Home office: Omaha, Nebraska.

RETURN YOUR ENROLLMENT FORM TODAY!

EXCEPTIONS Benefits are not payable for suicide; loss caused by war or sustained while in an armed service; or air travel except as a passenger (not a pilot or crew member) in a properly licensed and operated civil aircraft. The aggregate limit for all covered losses sustained in any one air travel accident by all insureds and insured Spouses involved in such accident shall not exceed $1,500,000.

Enroll now . . . How to Enroll

Fill in and mail the attached enrollment form along with your check for the first annual premium for the coverage you select. Make your check payable and mail to:
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Group Insurance Trust
180 N. LaSalle St., Suite 3220 Chicago, IL 60601

SCHEDULE OF BENEFITS AND RATES from $20,000 to $100,000

BENEFITS	BENEFITS		ANNUAL PREMIUMS	
Individual (Member Only)	Spouse	Each Child	Individual Plan	Family Plan Individual, Spouse and all eligible Child(ren)
$ 20,000	$ 8,000	$ 2,000	$ 14.00	$ 19.00
50,000	20,000	5,000	35.00	47.50
75,000	30,000	7,500	52.50	71.25
100,000	40,000	10,000	70.00	95.00

Brotherhood of Railroad Signalmen
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ENROLLMENT FORM

Group Accidental Death and Dismemberment Insurance for B of RS member's and their Families. MUTUAL of OMAHA INSURANCE COMPANY. Home Office: Omaha, Nebraska.
Please enroll me for the Plan checked below. I understand my coverage will become effective the first day of the month following the receipt of this form and proper premium.

Name _____

Address _____

City _____ State _____ Zip _____

Occupation _____ Birth Date _____ Age _____ M _____ F _____

Amount of Coverage $ _____ (Subscriber)

Member's Beneficiary _____ Relationship

Address _____

Spouse's Beneficiary _____ Relationship

Total Premium Enclosed $ _____

Date _____

Signature _____

The Plan I Choose:

Plan 1 $20,000		Plan 3 $75,000	
☐ Individual	$14.00 per year	☐ Individual	$52.50 per year
☐ Family Plan	$19.00 per year	☐ Family Plan	$71.25 per year
Plan 2 $50,000		**Plan 4 $100,000**	
☐ Individual	$35.00 per year	☐ Individual	$70.00 per year
☐ Family Plan	$47.50 per year	☐ Family Plan	$95.00 per year

MAKE YOUR CHECK PAYABLE TO:
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BRSDD-775ad

NAM Cont'd

signal maintainer at Clifton Forge, VA, and a member of Clifton Forge Local 89, retired January 4. **George Martin,** signal maintainer at Richmond, VA, and a member of Richmond Local No. 148, retired February 7. **W. B. Salmons,** signal supervisor at Richmond, VA, and a member of Tri-State Local No. 136, retired October 1.

C. A. Young, signal maintainer at North East, MD, and a member of Monumental Local No. 31, retired August 24, 1974. **Clyde Reese,** signal maintainer at Clare, MI, and a member of Valley City, Local No. 123, retired October 1. **David Morgan,** signal maintainer, Columbus, OH, retired August 1. **George Roller,** lead signal maintainer, Prospect, OH, retired July 25. Brothers Morgan and Roller are members of Hocking Local No. 216.

DELAWARE & HUDSON: **Sylvester L. Brackett,** signal maintainer at Whitehall, NY, retired January 4. **George S. Hodges,** signal shop foreman, at Colonie, NY, retired January 23. Brothers Brackett and Hodges are members of Local No. 147.

SOUTHERN: **Max O. Willis,** signal maintainer, Blacksburg, SC, retired in January 1975. Brother Willis is a member of Walters Local No. 110.

Burlington Northern: **W. C. Bradley,** ctc maintainer at Benkelman, NE has retired. "Bill" began his signal work as helper on the McCook division on June 20, 1935. Promoted to assistant signalman in November 1935 he also worked as assistant maintainer at Fall City, NE in the summer of 1937 and 1939. He followed construction and worked as leading signalman until December 6, 1944 when he went to Benkelman, NE as maintiner. He retired as ctc maintainer on January 31, 1974 after 38 years and 7 months. Brother Bradley is a member of Lincoln Local No. 119. "Bill" is affiliated with the United Methodist Church and the IOOF Lodge in Benkelman. Hobbies are bowling and just getting lots of exercise, reports secretary-treasurer Melvin Ivins of Lincoln Local No. 119.

SANTA FE: **R. A. Wood,** signalman, Illinois Division, has retired. Brother Wood is a member of Carrollton Local No. 20.

SOUTHERN PACIFIC: **William L. Brown,** signal maintainer, San Joaquin Division, and a member of Local No. 92, has retired.

BofRS member receives Boy Scout award

William J. Oseles, ctc maintainer for the Burlington Northern at Berthold, ND has been awarded the Silver Beaver Award by the Northern Lights Council, Boy Scouts of America. Brother Oseles is a member of Great Northern local 154.

The award is made for noteworthy service of exceptional character to boyhood by registered Scouters within the territory under the jurisdiction of the council. The Northern Lights Council has over 7,000 registered adult Scouters and only 12 may be awarded this honor each year.

Brother Oseles of Minot has had an active involvement with the Boy Scouts of America for many years. He was Pack Chairman of Pack 419 for 4 years, and in February of 1965 he became Scout Master of Troop 409 and remained in that position for 10 years to the current time. He has been a member of the Tomahawk district training, camporee, Order of the Arrow Lodge executive and district activities committees. Brother Oseles has received the Scouters Key which is presented to a Scout Master when he has received full training.

He is also a recipient of the District Award of Merit which is the highest award that the Tomahawk District can present to a volunteer Scouter.

Brother Oseles is a former member of Elks Club and a member of the VFW Post in Minot. He is a member of the First Lutheran Church. He is a member of the Employees Club of Burlington Northern and was president for two years. He was past PTA president of the Roosevelt School. Brother Oseles is married, has seven children, four boys, three girls and four grandchildren.

Quarter Century Service Pin is presented to **Ansel E. Littlejohn,** (right) leading signal maintainer at Barrington, IL, on the Elgin, Joliet & Eastern by **J. A. Harvey,** manager signal, communications and electrical facilities. Brother Littlejohn is a member of Joliet Local No. 97.

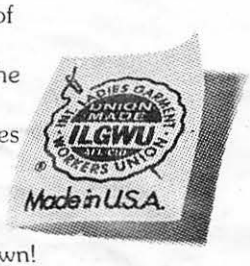
Brother Oseles and his wife are leaders in young peoples activities.

Working To Build America

75th Anniversary ILGWU 1900-1975

When the International Ladies Garment Workers Union was formed in 1900, workers labored 60 hours a week for pitifully low wages under sweatshop conditions. Over the years our union has grown to over 400,000 members, wages have risen, hours are shorter, workers' conditions are better. We are proud but not content. There is much to be done. There are still sweatshops in other parts of the world where workers labor 60 hours a week for as little as 11c per hour. Low-wage imports undermine American-made products and cost American workers hundreds of thousands of jobs, adding to the impact of the recession.

Before you buy, look for and insist on the ILGWU "Made in USA" union label in all women's and children's apparel. It symbolizes the skill of American workmanship, the creativity of American design, and the importance of American jobs. It makes a difference. The job you save may be your own!



This Union Label Helps Keep Americans Working

Union Label Department, International Ladies' Garment Workers' Union, 22 W. 38th Street, New York, N.Y. 10018

Signalman's Worksheet

A-C track circuits and relays

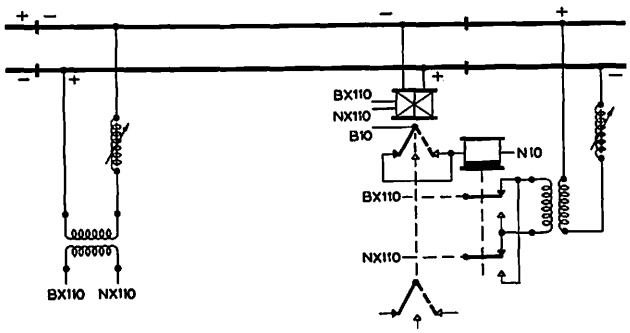


Fig. 122—Polarized ac track circuit.

Polarized track circuit

Figure 122 shows a typical circuit with a 2-element and 3-position a-c. relay for operation on non-electrified railroads.

This type track circuit is known as a "wireless" track circuit, since it provides control direct from the track relay for operation of 3-position signals, thereby eliminating line wires and line relays.

The circuit arrangement shows a slow release d-c. relay controlled through both a normal and a reverse contact on the track relay. The slow-release relay is required to pole change the primary of the track transformer with consequent change in the polarity of the track circuit in the rear and corresponding reversal of its track relay. The slow-release time of the d-c. relay must be sufficient to retain its front contact while the 3-position track relay is throwing from its reverse to its normal contact or vice versa. Pole changing directly with contacts on the track relay cannot be done because of the open circuit interval occurring when the track relay reverses. This momentary removal of energy from the track would be long enough to cause the relay in the rear also to open its contacts. This condition would continue throughout the track circuits, causing what is known as "tumbledown" of all the 3-position track relays to the end of the 3-position track circuits.

Track circuit with 2-element 2-position relay

This track circuit, Figure 123, is a simpler, less expensive arrangement than the 3-position one, but line wires and line relays are required to control the signal. Therefore, the overall cost of the 2-position track circuit, including signal-control means, is greater than that of the 3-position track circuit.

Double-rail track circuit for D-C. propulsion

Figure 124 shows a typical arrangement for use with d-c. propulsion. The tapped resistor is both a current limiting device and a means for obtaining the most favorable phase relationship between track and local currents in the 2-element track relay.

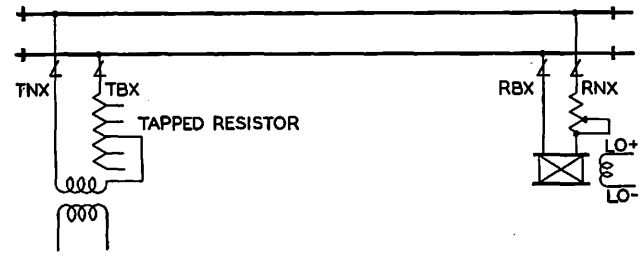


Fig. 123—Track circuit with 2-element, 2-position ac relay.

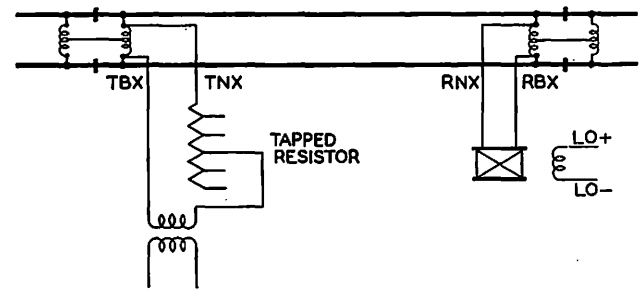


Fig. 124—Track circuit with ac track relay and impedance bonds for dc (or ac) propulsion.

Double-rail track circuit for A-C. propulsion

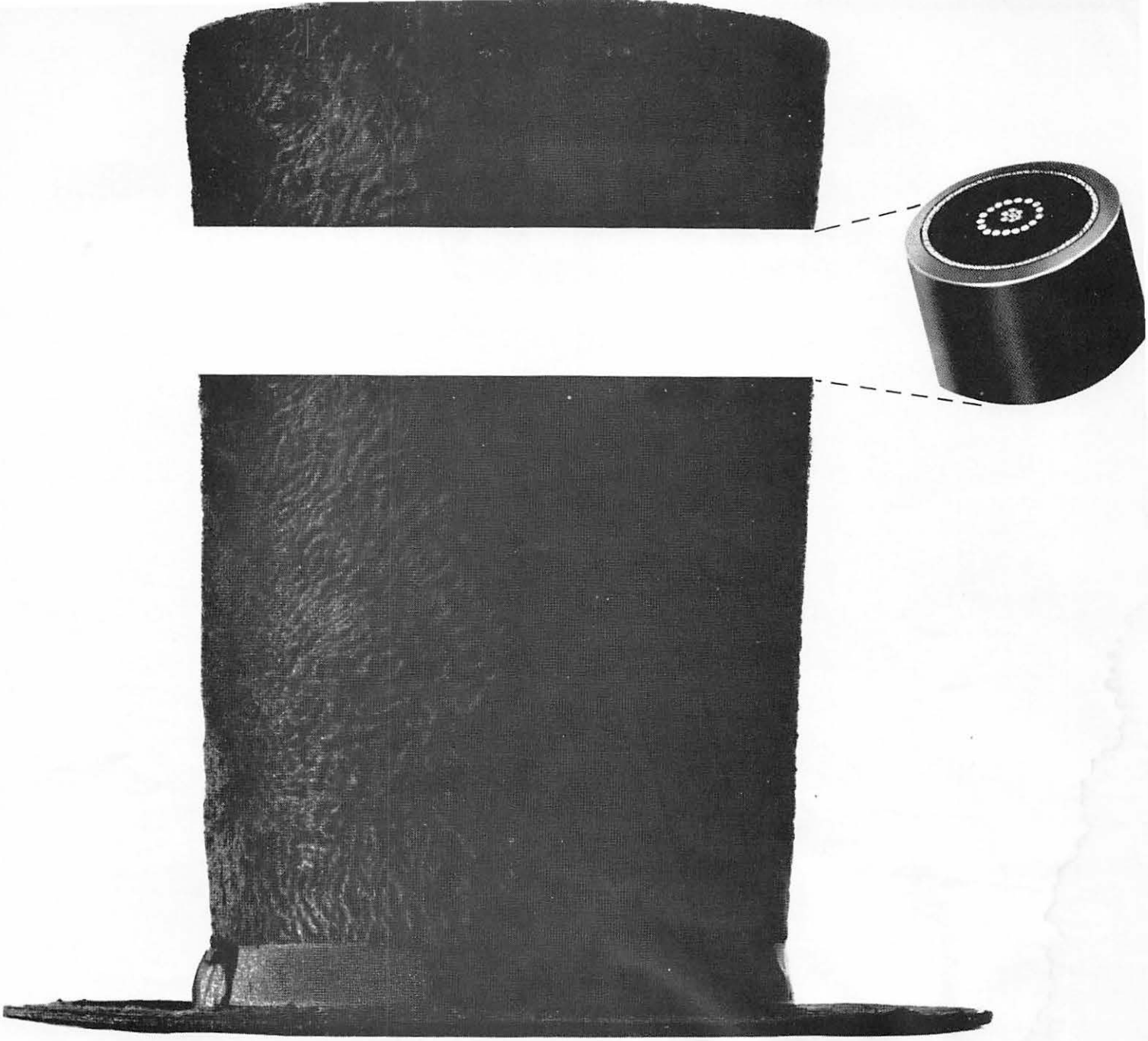
General track circuit arrangement is similar to that for d-c. electrified railroad, Figure 124, but apparatus differs.

The track relay used must be frequency selective. Since the frequency of the propulsion current on American railroads is 25 cycles, the relay was designed to respond only to currents having a frequency of 60 cycles. When track circuits are of lengths over 1000 feet, the centrifugal frequency relay is used, and the track circuits must be double rail equipped with impedance bonds.

Impedance bonds for a-c. propulsion are smaller than those for d-c. propulsion. D-c. propulsion-return currents, especially with 600 volts, may run 750 to 1000 amperes per rail. A-c. propulsion-return currents, usually at 11,000 volts, vary from about 100 to 600 amperes per rail.

Trouble due to unbalance, i.e., difference between propulsion-return currents in the two rails, does not affect the impedance bonds to anywhere near the degree that it may on d-c. electrified railroads. This is due not only to the propulsion-return currents being smaller, but also due to the autotransformer action of the bond. If more current starts to flow through one half of the bond's winding, it induces a voltage in the other half tending to pull a larger current from the other rail through that half. Hence the bonds are not likely to be unbalanced, and therefore they do not need as large an air gap in their magnetic circuit and can be adjusted to have somewhat higher impedance than bonds used on d-c. electrified railroads.

Data furnished by General Railway Signal Co.



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SERIES FREQUENCY SHIFT OVERLAY TRACK CIRCUITS

Series FSO Transceiver.

Transceiver with frequency determining boards removed.

for Outlying Switch Lock Release

Precise tuning — narrow band widths minimize interference from harmonics of power lines and other FSO equipment.

Choice of 3 frequencies — 13.8 KHz (channel 25), 17.0 KHz (channel 26), 20.9 KHz (channel 27) — mutually compatible, enabling transceivers to operate in close proximity without interference or the need of insulated joints.

Dependable and easy to maintain — solid-state design provides dependable, long term service. All electronic components are mounted on keyed printed circuit boards for ease of maintenance.

FSO compatible — all three channels are compatible with all GRS frequency shift overlay frequencies and most older type overlay track circuits.

Versatile — frequency determining elements are on two keyed printed circuit boards. Simply replace these boards and their corresponding keys to change the operating channel frequency.

Compact — the transceiver occupies the space of a GRS Type B, Size 2 relay — 5 inches wide, 7 inches high, and 9 inches deep. It can be shelf, wall, or rack mounted in a wayside case or housing.

For more information, write for GRS Catalog 92-1.

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